



Contents





Executive Summary 5

Roadway Departure 17

Impaired Driver 24

Unrestrained Occupants 31

Intersection Related 37

Speeding/Aggressive Driver 44

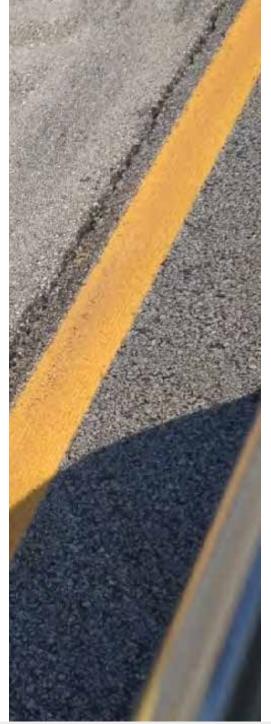
Older Driver 50



Illinois Strategic Highway Safety Plan 2017



Young Driver	58
Motorcycle	66
Heavy Vehicle	73
Pedestrian	79
Pedalcyclist	86
Work Zone	93
Distracted/Fatigued/Drowsy Driver	101
Highway-Railroad Grade Crossings	108
Traffic Incident Management	116
Information Systems	121



Illinois Strategic Highway Safety Plan 2017



Greetings:

As Secretary of Transportation for the State of Illinois, I want our roadways to be safe for everyone. A safe and reliable transportation system helps to keep our economy moving and helps ensure the quality of life we enjoy in Illinois.

I am pleased to present the Illinois Strategic Highway Safety Plan (ILSHSP). This collaborative plan was created through the work of many safety advocates. Stakeholders included those involved in planning, designing, constructing, operating and maintaining the roadway infrastructure; modifying road-user behavior and preventing injury (education and enforcement); and controlling injury (emergency medical services). This ILSHSP outlines a clear set of actions and proposed strategies to be taken to save lives on our roadways.

Our progress in roadway safety has been impressive. Traffic fatalities in Illinois have fallen from 1,454 in 2003 to just under 1,000 in 2015. Still, far too many people are being killed or seriously injured on Illinois roadways. With that in mind, the SHSP is targeting a goal of "Zero Fatalities," which envisions reducing fatalities on Illinois roadways to zero in the long term.

Our shared vision of eliminating roadway fatalities can become tomorrow's reality. Achieving that vision requires continued collaboration, cooperation, and the sharing of knowledge and resources throughout the implementation of this plan. We must all do our part in keeping our roadways safe. Whether you drive, walk, ride, or bike, remember safety doesn't happen by accident. Together we can make a positive difference in the lives of our citizens and visitors to our state and "Drive Zero Fatalities to Reality."

Sincerely,

Randall S. Blankenhorn Secretary of Transportation Letter from the Secretary

Executive Summary

Introduction

The Illinois Strategic Highway Safety Plan (ILSHSP) provides an opportunity for safety stakeholders to participate in the statewide effort to reduce fatalities and serious injuries on Illinois roadways. The SHSP is a compilation of 4E (Education, Enforcement, Emergency Medical Services, and Engineering) safety strategies, plans, and programs developed based on data-driven priorities and proven effective strategies and approaches.

This ILSHSP serves as an overarching guidance document to safety programs and strategies to address fatalities and serious injuries. It is an umbrella plan for highway safety improvement programs (HSIPs), commercial vehicle safety plans (CVSPs), highway safety plans (HSPs), and other State and local plans. Crash statistics represent fatalities and serious injuries from 2010 to 2014, statewide, and by ILSHSP emphasis areas. Each of the emphasis areas has been prioritized based on the greatest opportunity to reduce fatalities and serious injuries. Each life is valuable; the ultimate goal is to reduce fatalities to zero.



SHSP Mission

The ILSHSP mission is to develop, implement, and manage a data-driven, integrated, multi-stakeholder process to improve the attributes of roads, behavior of users, and performance of vehicles to reduce traffic-related deaths and life-altering injuries on all public roads in Illinois.

SHSP Goal - Zero Fatalities

The ILSHSP "Zero Fatalities" goal, established at the 2008 Illinois Safety Summit, envisions reducing fatalities on Illinois roads to zero in the long term. Safety Stakeholders agreed that immediate and aggressive actions must be taken to continue to significantly reduce the number of traffic-related deaths and life-altering injuries in Illinois.

The ILSHSP is the tool to achieve this Zero Fatalities goal. Annual targeted fatality reductions of 5 to 10 percent overall were agreed to by all stakeholders in 2008. With new performance measures and targets being required to be established by states, these numbers will be reconsidered. Implementation teams will consider these as they develop their implementation plans and strategies. Significant investments were made in strategies designed to reduce fatalities in specific crash areas.

SHSP Partners

American Automobile Association (AAA) Chicago

American Association of Retired Persons (AARP)

Chicago Metropolitan Agency Planning

Chicago Police Department

Federal Highway Administration (FHWA)

Federal Motor Carrier Safety Administration (FMCSA)

Illinois Department of Transportation

Illinois American Traffic Safety Services Association

Illinois Association of County Engineers

Illinois Association of Chiefs of Police

Illinois Broadcasters Association

Illinois Commerce Commission

Illinois Department of Public Health

Illinois Municipal League Public Works

Illinois Road and Transportation Builders Association

Illinois Secretary of State

Illinois Sheriffs' Association

Illinois Tollway

Illinois State Police

Illinois Trucking Association

Metropolitan Planning Organizations

Mid-West Truckers Association

National Highway Safety Transportation Administration (NHTSA)

Township Highways Commissioners

STRATEGIC HIGHWAY SAFETY PLAN OVERVIEW



The 2015 federal bill reauthorizing surface transportation funding, titled Fixing America's Surface Transportation Act (FAST), re-emphasizes key safety elements of MAP-21 (Moving Ahead for Progress in the 21st Century) and SAFETEA-LU by continuing to require each state to develop, implement, and update a Strategic Highway Safety Plan (SHSP). An SHSP is a statewide coordinated safety plan that provides a comprehensive framework for reducing fatalities and serious injuries on all public roads. The SHSP identifies effective strategies to improve roadway safety by addressing areas of greatest need. The SHSP remains a statewide coordinated plan developed in cooperation with a broad range of multidisciplinary stakeholders.

The first Illinois Comprehensive Highway Safety Plan (ICHSP) was developed in 2005 and the first Highway Safety Plan (HSP) was developed in 2006. Although recent years have been safer for roadway traffic, too many people are dying on Illinois roadways from traffic crashes. With that in mind, the 2009 Illinois Strategic Highway Safety Plan (ILSHSP) set a new goal of Zero Fatalities, which envisioned reducing fatalities on Illinois roadways to zero in the long term.

In this version of the ILSHSP, the Zero Fatalities goal is the guiding principle. Through integrating the efforts and resources of multidisciplinary safety stakeholders, this SHSP defines a system, organization, and process for managing the attributes of the road, driver, and vehicle to achieve the highest level of roadway safety. The ILSHSP uses a performance based approach and data-driven process for emphasis area prioritization and strategy selection.

Process

Analyses are performed based on safety data collected by the Illinois Department of Transportation (IDOT) for the number of traffic-related fatalities and serious injuries. To identify trends, other sources are considered including, but are not limited to, National Highway Traffic Safety Administration (NHTSA) Fatality Analysis Reporting System (FARS) data, Federal Railroad Administration (FRA) Highway-Rail Crossing Inventory Data, vehicle licensing data, and roadway traffic volume data. This plan was developed using the most recent data available (2010-2014) at the time of plan development, unless otherwise noted.

A data-driven method is used to analyze trends and prioritize emphasis areas. Strategies are aimed at addressing the areas and contributing factors associated with high frequencies of fatalities and serious injuries. FHWA's Crash Modification Factor (CMF) Clearinghouse (FHWA, 2014) studies and project-level evaluations are consulted to select efficient strategies; and benefit-cost analyses are considered to define low cost and systemic strategies.



The state of Illinois is firmly committed to achieving a safer transportation system for the public. Discussions with stakeholders captured the impacts of emerging technologies, the role of state and local agencies, and several specific safety issues.

Stakeholder Outreach

The state is committed to achieving a safer transportation system for the public, stakeholder involvement and commitment is crucial. Over 140 stakeholders participated in 16 emphasis areas working groups. Stakeholders represent the 4E areas – engineering, enforcement, education, and emergency medical services and include multi-modal federal and state agencies, regional safety coalitions, and local agencies.

Working sessions with coalition stakeholders at executive meetings, forums, and workshops have captured the impacts of emerging technologies, the role of state and local agencies, and several safety issues and have provided input on the emphasis-area crash trends and strategies based on their knowledge and current initiatives.

IDOT coordinated with the Metropolitan Planning Organizations (MPOs) and counties to identify and address issues on non-state owned roadways. Targeted workshops were conducted through the MPO targetsetting effort and the county strategic highway safety plan program to discuss goals, priorities, and strategies. In addition, IDOT is working with each county to develop county-specific SHSPs. These plans are datadriven, with a goal to reduce severe crashes (those involving fatalities and serious injuries) by documenting at-risk locations, identifying effective safety improvement strategies, and better positioning respective counties to compete for available safety funds. Plans include a description of the connection to safety-planning efforts at the national level, state level (through the ILSHSP and the HSIP), and MPO level.

The Illinois executive transportation safety committee presented the mission, vision, and Zero Fatalities goal. The SHSP was developed to provide collaboration with and guidance to stakeholder agencies to maximize the impact of investments to achieve safety goals. The SHSP has multiyear objectives for each emphasis area along individual implementation plans.

EXAMPLE OF ILHSP IMPLEMENTATION TRACKING TOOL

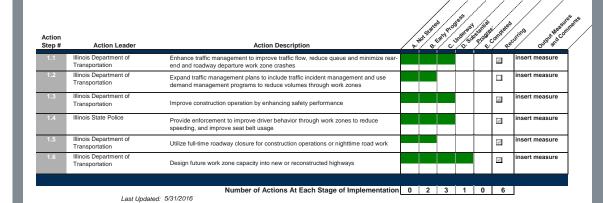
EMPHASIS AREA: Work Zone EA Team Leaders: TBA Number of Work Zone Related Fatalities Reduce work zone related fatalities by 8 by the end of 2020 Reduce work zone related serious injuries by 58 by the end of 2020 Performance Measures: Fatalities and Serious Injuries Five-Year Rolling Avg Fatalities 25 24 23 22 20 19 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 Five-Year Rolling Avg Serious Injuries Draft Target Serious Injuries 196 186 177 167 157 148 138 Number of Work Zone Related Serious Injuries Action Implementation Summary 200 - Actual Serious Injuries Overall Emphasis Area Traffic 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 Strategy Sta Number of Work Zone Related Fatalities and Serious Injuries B. Early Progres 300 D. Substantial Progress 250 E. Completed 200 150 Actual Fatalities and Serious - DRAFT Target Far 2012 2013 2014 2015 2016 2017 2018 2019 2020

Illinois SHSP Implementation Tracking Tool

Illinois SHSP Implementation Tracking

EMPHASIS AREA: Work Zone

Strategy 1: Enahce work zone safety performance and reduce the impact of work zones



Implementation

The ILSHSP emphasis area teams will continue with implementation plans to make sure stakeholders are coordinating and progressing to achieve goals established in the ILSHSP. Emphasis-area tracking tools and regular meetings are used to monitor progress.

Data is collected and programs are tracked to measure performance outcomes, evaluate program and project investments to adapt, as needed, to improve safety and save lives on Illinois roadways. Stakeholder meetings, working group meetings, and executive committee meetings are conducted regularly to discuss issues, progress, and action items.

To achieve the requirements set forth by the FAST Act and the ILSHSP, opportunities to produce a measurable and significant reduction in fatalities and serious injuries resulting from crashes on the roadway system need to be incorporated into all aspects of the roadway transportation safety management process for all safety stakeholders. The ILSHSP should be used as a guide in developing the state and local agency safety programs and will support statewide safety organizations.

Results

From 2000 to 2005, Illinois averaged slightly over 1,400 fatalities per year. If that average had held true from 2006 through 2014, approximately 3,430 additional people would have died on Illinois roadways. Between 2004 and 2013, Illinois experienced a 32% reduction in fatalities and a 36% reduction in serious injuries. The charts to the right show the decline in both fatalities and A-injuries (serious injuries or incapacitating injury: any injury, other than a fatal injury, that prevents the injured person from walking, driving, or normally continuing the activities the person was capable of performing before the injury occurred) since 2005. The rate of decline for both fatalities and A-injuries has significantly slowed over the last 5 years, with fatalities actually increasing slightly.

FIGURE IL-O1 Fatalities in Illinois from 2005 to 2014

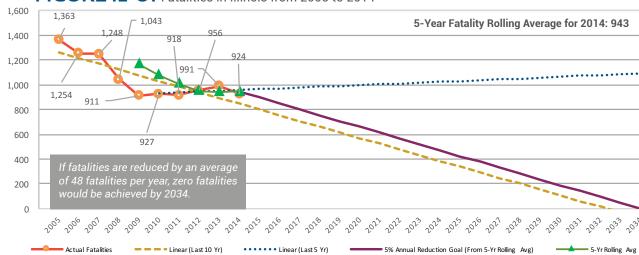


FIGURE IL-O2 A-Injuries in Illinois from 2005 to 2014

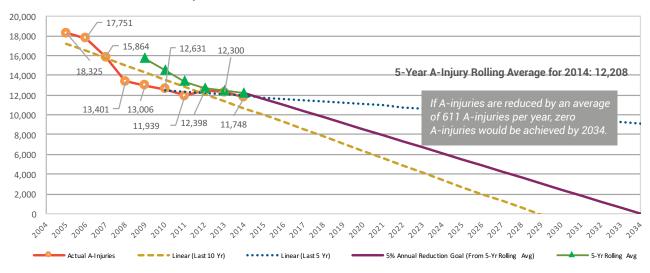


Figure IL-03 Fatalities in Illinois From 2005 to 2014, State and Local Routes

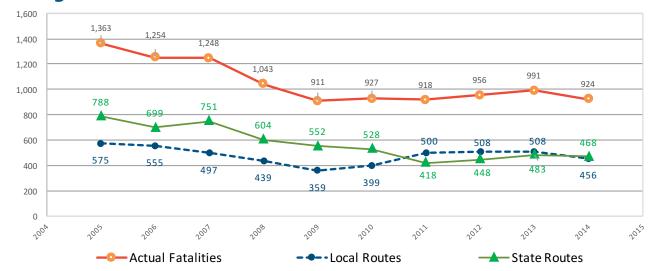
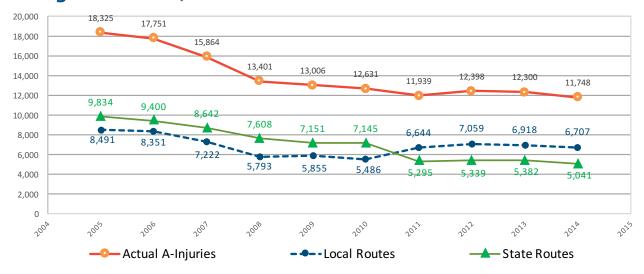


Figure IL-04 A-Injuries in Illinois From 2005 to 2014, State and Local Routes



Crashes are designated as occurring on State or Local/County roadways using the Class of Trafficway. Local/County roadways include the following Class of Trafficway designations: "County & Local Roads - Rural" and "City Streets - Rural". State roadways include the following Class of Trafficway designations: "Unmarked Highway - Rural," "Controlled - Rural," "State Numbered - Rural," "Toll Roads - Rural," "Controlled - Urban," "State Numbered - Urban," "Unmarked Highway - Urban," and "Toll Roads - Urban".

Special Requirements

High Risk Rural Roads

Although MAP-21 eliminated the requirement for every state to set aside funds for High Risk Rural Roads, FAST continues to require states to allocate funds for this purpose if the fatality rate on rural roads increases over the most recent 2-year period for which data are available. High risk rural roads are defined as roadways functionally classified as rural major or minor collectors or rural local roads with a fatal or A-injury crash rate above the statewide average for those functional classes of roadways; or likely to experience an increase in traffic volume that leads to a crash rate in excess of the statewide average rate.

Older Drivers and Older Pedestrians

States also are required by FAST to incorporate strategies focused on older drivers and older pedestrians if fatalities and injuries per capita for those groups increase.

Data Analysis

The SHSP is a data-driven process that addresses 16 emphasis areas. The data analyses were used to identify safety strategies to make the largest impacts in reducing traffic fatalities and A injuries.

Emphasis Areas

TABLE IL-O1 Emphasis Area Overview from 2010 to 2014

Priority Level	Emphasis Areas	Fatalities	A-Injuries	Fatalities and A-Injuries
	Roadway Departure	2,483	19,279	21,762
PRIORITY LEVEL	Impaired Driver	2,088	8,331	10,419
1	Unrestrained Occupants	1,377	5,041	6,418
	Intersection Related	1,178	26,397	27,575
	Speeding/Aggressive Driver	1,108	12,884	13,992
	Older Driver	848	9,593	10,441
PRIORITY LEVEL	Young Driver	694	12,240	12,934
2	Motorcycle	694	5,271	5,965
_	Heavy Vehicle	672	4,426	5,098
	Pedestrian	641	4,525	5,166
	Pedalcyclist	137	2,047	2,184
PRIORITY LEVEL	Work Zone	133	980	1,113
3	Distracted/Fatigued/Drowsy Driver	123	3,264	3,387
	Highway-Railroad Grade Crossings	45	54	99
CROSS	Traffic Inciden	t Management		
DISCIPLINARY AREAS	Informatio	n Systems		

Legend	10, 50,	PR	IORITY	LEVEL O	NF		PRIORITY LEVEL TWO					PRIORITY LEVEL THREE			
>25% 10%-25% 5%-10%	1%-5% 0.1%-1% <0.1%	Roadway Departure	Impaired Driver	Unrestrained Occupants	Intersection Related	Speeding/ Aggressive Driver	Older Driver	Young Driver	Motorcycle	Heavy Vehicle	Pedestrian	Pedalcyclist	Work Zone	Distracted/ Fatigued/ Drowsy	Highway- Railroad Grade Crossings
PRIORITY LEVEL	Roadway Departure	100%	68%	75%	14%	65%	43%	57%	50%	33%	0.6%	0%	33%	50%	0%
1	Impaired Driver	57%	100%	63%	34%	52%	19%	39%	53%	28%	18%	12%	31%	14%	40%
	Unrestrained Occupants	42%	41%	100%	20%	36%	20%	33%	0%	24%	0%	0%	21%	29%	18%
	Intersection Related	7%	19%	17%	100%	17%	38%	28%	33%	34%	24%	35%	15%	9%	0%
	Speeding/ Aggressive Driver	29%	28%	29%	16%	100%	13%	30%	29%	21%	10%	10%	35%	6%	7%
PRIORITY LEVEL	Older Driver	15%	8%	12%	27%	10%	100%	9%	13%	21%	9%	12%	25%	20%	16%
2	Young Driver	16%	13%	16%	17%	19%	8%	100%	10%	11%	8%	9%	9%	11%	4%
	Motorcycle	14%	18%	0%	20%	18%	11%	10%	100%	6%	0%	0%	16%	3%	0%
	Heavy Vehicle	9%	9%	12%	20%	12%	17%	11%	6%	100%	10%	15%	48%	22%	4%
	Pedestrian	0.2%	6%	0%	13%	6%	7%	8%	0%	10%	100%	0%	14%	20%	0%
PRIORITY	Pedalcyclist	0%	0.1%	0%	4%	1%	2%	2%	0%	3%	0%	100%	2%	5%	0%
3	Work Zone	2%	2%	2%	2%	4%	4%	2%	3%	10%	3%	2%	100%	5%	0%
	Distracted/ Fatigued/ Drowsy	2%	0.1%	3%	0.9%	0.6%	3%	2%	0.6%	4%	4%	4%	5%	100%	0%
	Highway- Railroad Grade Crossings	0%	0.9%	0.6%	0%	0.3%	0.8%	0.3%	0.3%	0.3%	0%	0%	0%	0%	100%

Legend >25%	1%-5%	PR	IORITY	LEVEL O	NE		PR	IORITY I	_EVEL TV	VO		PR	RIORITY	LEVEL TH	HREE
10%-25% 5%-10%	0.1%-1%	Roadway Departure	Impaired Driver		Intersection Related	Speeding/ Aggressive Driver	Older Driver	Young Driver	Motorcycle	Heavy Vehicle	Pedestrian			Distracted/ Fatigued/ Drowsy	Highway- Railroad Grade Crossings
	Roadway Departure	100%	61%	61%	8%	35%	19%	32%	39%	21%	0.8%	0.5%	22%	56%	0%
PRIORITY LEVEL	Impaired Driver	26%	100%	35%	8%	10%	4%	10%	14%	8%	3%	2%	11%	3%	20%
1	Unrestrained Occupants	16%	21%	100%	5%	10%	5%	9%	0%	8%	0%	0%	7%	11%	15%
	Intersection Related	12%	26%	27%	100%	32%	56%	47%	34%	37%	44%	57%	32%	23%	6%
	Speeding/ Aggressive Driver	24%	16%	25%	16%	100%	17%	25%	21%	25%	9%	7%	27%	7%	4%
	Older Driver	10%	5%	9%	21%	13%	100%	8%	11%	17%	9%	11%	18%	17%	20%
PRIORITY LEVEL	Young Driver	20%	15%	23%	22%	24%	11%	100%	11%	12%	8%	7%	15%	21%	13%
2	Motorcycle	11%	9%	0%	7%	8%	6%	5%	100%	2%	0%	0%	10%	2%	0%
	Heavy Vehicle	5%	4%	7%	6%	9%	8%	4%	2%	100%	3%	4%	16%	9%	6%
	Pedestrian	0.2%	2%	0%	7%	3%	4%	3%	0%	3%	100%	0%	7%	2%	2%
	Pedalcyclist	0%	0.4%	0%	4%	3%	2%	1%	0%	2%	0%	100%	2%	1%	0%
PRIORITY LEVEL	Work Zone	1%	1%	1%	1%	2%	2%	1%	2%	4%	1%	1%	100%	2%	0%
3	Distracted/ Fatigued/ Drowsy	9%	1%	7%	3%	2%	6%	6%	1%	7%	2%	2%	6%	100%	0%
	Highway- Railroad Grade Crossings	0%	0.1%	0.2%	0%	0%	0.1%	0%	0%	0%	0%	0%	0%	0%	100%

Disclaimer Results of the analyses are based on data that was received from the Illinois Department of Transportation. Crash data represents years 2010 to 2014 and was obtained from the state police and other enforcement agencies. Crash data for years 2010 to 2012 was received from IDOT on November 26, 2013, crash data for 2013 was received from IDOT on December 4, 2014, and crash data for 2014 was received from IDOT on December 16, 2015. The data was used "as is" for analysis purposes and should be interpreted accordingly.

How to Read Matrix

STEP 1:
The title row shows the three priority levels

STEP 2:

The subtitle row shows the 14 emphasis areas

Legend >25%	1%-5%	PF	RIORITY I	LEVEL O	NE		PF	RIORITY I	EVEL T	NO		PR	IORITY L	EVEL TH	IREE
10%-25% 5%-10%	0.1%-1% <0.1%	Roadway Departure	Impaired Driver	Unrestrained Occupants	Intersection Related	Speeding/ Aggressive Driver	Older Driver	Young Driver	Motorcycle	Heavy Vehicle	Pedestrian	Pedalcyclist	Work Zone	Distracted/ Fatigued/ Drowsy	Highway- Railroad Grade Crossings
	Roadway Departure	100%	68%	75%	14%	65%	43%	57%	50%	33%	0.6%	0%	33%	50%	0%
PRIORIT LEVEL	STEP 3: When narrowing the same colum						19%	39%	53%	28%	18%	12%	31%	14%	40%
	For example, the fatalities, 29% h						ZU%	Note: 1. The colors represent thresholds based on the legend. (see legend top left corner)						er)	18%
	Intersection Related		19%	17%	100%	17%	38%	- Orange:	gray: 100%; D between 10%	ark gray: grea and 25%; Yell		5% and 10%			0%
	Speeding/ Aggressive Driver	29%	28%	29%	16%	100%	13%		etween 1% an ween 0.1% an	d 5%; nd 1%; White :	less than 0.19	%			7%
	Older Driver	15%	8%	12%	27%	10%	100%	9%		21%	9%	12%	25%	20%	16%
PRIORITY LEVEL	Young Driver	16%	13%	16%	17%	19%	8%	100%	10%	11%	8%	9%	9%	11%	4%
2	Motorcycle	14%	18%	0%	20%	18%	11%	10%	100%	6%	0%	0%	16%	3%	0%
	Heavy Vehicle	9%	9%	12%	20%	12%	17%	11%	6%	100%	10%	15%	48%	22%	4%
	Pedestrian	0.2%	6%	0%	13%	6%	7%	8%	0%	10%	100%	0%	14%	20%	0%
PRIORITY	Pedalcyclist	0%	0.1%	0%	4%	1%	2%	2%	0%	3%	0%	100%	2%	5%	0%
3	Work Zone	2%	2%	2%	2%	4%	4%	2%	3%	10%	3%	2%	100%	5%	0%
	Distracted/ Fatigued/ Drowsy	2%	0.1%	3%	0.9%	0.6%	3%	2%	0.6%	4%	4%	4%	5%	100%	0%
	Highway- Railroad Grade Crossings	0%	0.9%	0.6%	0%	0.3%	0.8%	0.3%	0.3%	0.3%	0%	0%	0%	0%	100%

Acronyms

AAIM Alliance Against Intoxicated Motorists

CDIP Crash Data Improvement Program

CDL Commercial Driver's License

CIOT Click-It-or-Ticket

ClS Crash Information System

CODES Crash Outcomes Data Reporting System

CTA Chicago Transit Authority

CVSP Commercial Vehicle Safety Plan

DRAC Driver Apparent Condition

DRE Drug Recognition Expert

E-CODES External Causes of Injury Codes

EMS Emergency Medical Services

FAST Fixing America's Surface Transportation Act

GDL Graduated Driver Licensing

HSIP Highway Safety Improvement Program

HSP Highway Safety Plan
HTC High-Tension Cable

ICHSP Illinois Comprehensive Highway Safety Plan

IDOT Illinois Department of Transportation
IDPH Illinois Department of Public Health

ILSHSP Illinois Strategic Highway Safety Plan

ILETSB Illinois Law Enforcement Training

and Standards Board

IRIS Illinois Roadway Information System

ISP Illinois State Police

ISS Injury Surveillance System

ITS Intelligent Transportation Systems

MAP-21 Moving Ahead for Progress in the 21st Century Act

MCR Mobile Capture and Reporting

MPAC Mayor's Pedestrian Advisory Council

MUTCD Manual on Uniform Traffic Control Devices

NCHRP National Cooperative Highway Research Program

NEMSIS National EMS Information System

PROM Please Return on Monday

RFID Radio Frequency Identification

RSA Road Safety Audit/Road Safety Assessment

SAFETEA-LU Safe, Accountable, Flexible, Efficient Transportation

Equity Act: A Legacy for Users

SHSP Strategic Highway Safety Plan

SRA Safe Route Ambassador

TAP Taxi Access Program

TIM Traffic Incident Management
TRACS Traffic and Criminal Software

VMT Vehicle Miles Traveled



Roadway Departure



To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area. Roadway departure fatalities and serious injuries are the most relative to other ILSHSP emphasis areas.

A roadway departure crash is a crash in which a vehicle crosses an edge line, a centerline, or otherwise leaves the traveled way. Roadway departure includes crashes where the collision type is overturned, fixed object, sideswipe-opposite direction, or head-on. Roadway departure collisions tend to result in severe crashes and are unforgiving, even at low speeds.

An action plan was developed by Illinois' Roadway
Departure Implementation Team to implement
integrated, multidisciplinary strategies to reduce
roadway departure crashes. Over 600 miles of
shoulder and centerline rumble strips were installed
to warn drivers when they are leaving the roadway or
crossing into opposite traffic lanes. In addition, IDOT
has completed a study of rural state highways to
locate road segments where rumble strips will address
patterns of roadway departure crashes. Curve chevron
alignment signs were funded and implementation

has begun system wide. This occurred after the 2009 version of the Manual of Uniform Traffic Control Devices (MUTCD) provided guidance and standards for curve chevron alignment signs. Other efforts to reduce roadway departure crashes include paved shoulders, safety edges, improved guardrails, and high-tension cable (HTC) median barriers.

Reflective tape and signage can be used to alert drivers of roadway curvatures and fixed objects near the roadway. Fixed object crashes account for the majority of roadway departure crashes. These crashes occur when a vehicle departs its travel lane and collides with a fixed object. The most frequent fixed objects hit are: utility poles, guardrail, tree and fence.

Roadway departure fatalities and serious injuries represent 33% of overall fatalities and serious injuries in Illinois and therefore is a *Priority Level One*.

FIGURE RD-01

Roadway Departure Priority Level

Pedalcyclist

Work Zone

Distracted/Fatigued/ Drowsy Driver

Highway-Railroad Grade Crossings



Speeding/Aggressive Driver

Older Driver

Young Driver

Motorcycle

Heavy Vehicle

Pedestrian



ROADWAY DEPARTURE

Impaired Driver
Unrestrained Occupants
Intersection Related



ILSHSP ROADWAY DEPARTURE SAFETY TARGETS

Fatalities:

Reducing 5-year rolling average from 497 in 2014 to less than 348 by 2020

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 3,856 in 2014 to less than 2,700 by 2020

Progress

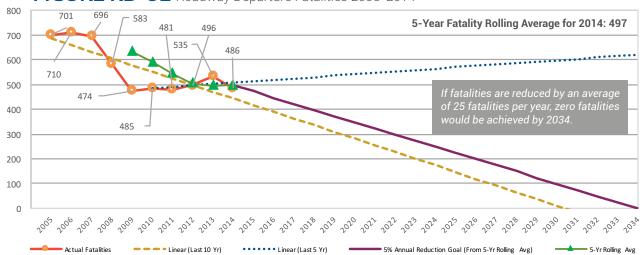
Illinois has continued to see an overall downward trend in fatal and A-injury crashes with the multidisciplinary approaches to implement corridor and systemic improvements. Recent improvements

include: installation of milled-in rumble strips on both shoulders of the interstate roadways; installation of



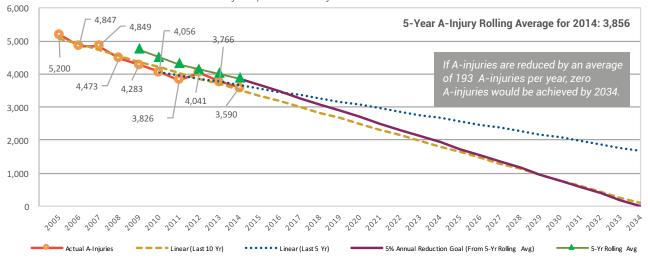
Progress (continued)





new and upgrading of old guardrail end sections; funding for strict speed enforcement programs for State Police motorcycle patrols; installation of the Safety Edge treatment; strategically placed HTC median barriers; widened paved shoulders at highrisk locations; improved legibility of signs; and the addition of chevron signs on sharp curves. All of these improvements have proven to drive down the number of crashes and improve safety on Illinois roadways.

FIGURE RD-03 Roadway Departure A-Injuries 2005-2014



Issues and Contributing Factors to be Addressed

TABLE RD-01

ROADWAY DEPARTURE: Number of Fatalities on State and Local Urban/Rural Roadways from 2010 to 2014

Fatalities	Sta	te Roadways	;	L	Local Roadways				
1 ataitties	Urban	Rural	Total	Urban	Rural	Total	Total		
2010	116	125	241	99	145	244	485		
	(24%)	(26%)	(50%)	(20%)	(30%)	(50%)	(100%)		
2011	81	128	209	114	158	272	481		
	(17%)	(27%)	(43%)	(24%)	(33%)	(57%)	(100%)		
2012	91	121	212	120	164	284	496		
	(18%)	(24%)	(43%)	(24%)	(33%)	(57%)	(100%)		
2013	45	200	245	128	162	290	535		
	(8%)	(37%)	(46%)	(24%)	(30%)	(54%)	(100%)		
2014	40	199	239	123	124	247	486		
	(8%)	(41%)	(49%)	(25%)	(26%)	(51%)	(100%)		
Total	373	773	1,146	584	753	1,337	2,483		
	(15%)	(31%)	(46%)	(24%)	(30%)	(54%)	(100%)		

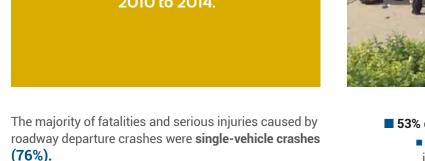
TABLE RD-02

ROADWAY DEPARTURE: Number of A-Injuries on State and Local Urban/ Rural Roadways from 2010 to 2014

A Injuries	Sta	te Roadways		L	Local Roadways				
A-Injuries	Urban	Rural	Total	Urban	Rural	Total	Total		
2010	1,161	912	2,073	739	1,244	1,983	4,056		
	(29%)	(22%)	(51%)	(18%)	(31%)	(49%)	(100%)		
2011	856	797	1,653	988	1,185	2,173	3,826		
	(22%)	(21%)	(43%)	(26%)	(31%)	(57%)	(100%)		
2012	598	998	1,596	1,057	1,388	2,445	4,041		
	(15%)	(25%)	(39%)	(26%)	(34%)	(61%)	(100%)		
2013	430	1,240	1,670	1,012	1,084	2,096	3,766		
	(11%)	(33%)	(44%)	(27%)	(29%)	(56%)	(100%)		
2014	362	1,219	1,581	997	1,012	2,009	3,590		
	(10%)	(34%)	(44%)	(28%)	(28%)	(56%)	(100%)		
Total	3,407	5,166	8,573	4,793	5,913	10,706	19,279		
	(18%)	(27%)	(44%)	(25%)	(31%)	(56%)	(100%)		

As shown in **Table RD-01**and **Table RD-02**, over 54% of roadway departure fatalities and over 56% of roadway departure-related A-injuries occurred between 2010 and 2014 on local roadways versus state roadways. A majority of roadway departure fatalities and A-injuries occurred in rural areas.

The following list includes additional high-priority trends and issues for roadway departure crashes. Numbers and percentages reflect roadway departure fatalities and serious injuries from 2010 to 2014.



Of all the roadway departure fatalities and serious injuries, **14**% occurred under **inclement weather conditions** (rain or snow).

- 31% of these fatalities and serious injuries involved speeding and/or aggressive drivers.
- 22% of these fatalities and serious injuries involved impaired drivers.

Fatalities and serious injuries from roadway departure accounted for:

■ 58% of fatalities and serious injuries occurred in rural areas between 2010 and 2014.



- 53% of them were on local roadways.
 - 62% of these fatalities and serious injuries were from fixed-object crashes.
- 42% of fatalities and serious injuries occurred in urban areas.
 - 59% of them were on local roadways.
 - 59% of them were within the Chicagoland area (Cook, DuPage and Will counties).

At-fault drivers in **32**% of roadway departure fatalities and serious injuries were in the **16 to 25 age group**.

- **49%** of roadway departure-related fatalities and serious injuries occurred at **night**.
- 59% of them were in darkness without roadway lighting.

- 43% of them occurred during the weekend (Saturday and Sunday).
 - 54% of these weekend fatalities and serious injuries involved impaired driving.

78% of roadway departure fatalities and serious injuries were on **undivided roadways or divided roadways without median barriers**.

- 56% of them were caused by fixed-object crashes.
 - 29% of these fatalities and serious injuries occurred on curved roadways.
 - 38% of them involved impaired drivers.
 - 33% of them involved speeding and aggressive drivers.

Objectives and Strategies

Illinois continues to strive to
enhance safety regarding roadway
departure crashes. Table RD-O3
identifies some key objectives and
potential strategies to address the
contributing factors associated
with roadway departure fatalities
and serious injuries.

This data-driven, collaborative approach will help Illinois achieve roadway departure fatality and A-injury goals and ultimately drive Zero Fatalities to a reality.

TABLE RD-03 Objectives and Strategies to Address Roadway Departure Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Keep vehicles	1.1 Install rumble strips.	Engineering
in their respective lanes	1.2 Provide enhanced shoulder or in-lane delineation and marking for sharp curves.	Engineering
	1.3 Improve highway geometry for horizontal curves.	Engineering
	1.4 Provide enhanced pavement markings and median barrier devices/installations.	Engineering
	1.5 Apply shoulder treatments, eliminating shoulder drop-offs and widen/pave shoulders.	Engineering
	1.6 Install only new guardrail and guardrail end sections that pass crashworthy tests.	Engineering
	1.7 Develop a procedure for law enforcement officers to request engineering assessments of crash sites.	Engineering/ Enforcement
	1.8 Evaluate pavement and skid resistance to reduce roadway departure crashes.	Engineering
	1.9 Implement strategic enforcement based on data-driven approaches and enhance communication and coordination between agencies.	Enforcement
2. Minimize the likelihood of	2.1 Evaluate and address existing slopes and ditches where appropriate to prevent rollovers.	Engineering
crashing into an object or overturning if the vehicle travels	2.2 Remove or relocate objects in hazardous locations including evaluating need for guardrail.	Engineering
beyond the edge of the shoulder	2.3 Delineate roadside objects such as trees, utility poles, or drainage structures with the appropriate treatment.	Engineering
3. Reduce the	3.1 Utilize improved designs for roadside hardware, where appropriate.	Engineering
severity of the crash	3.2 Use barrier and attenuation systems at needed locations.	Engineering
	3.3 Evaluate existing signage and implement additional innovative and ITS signage and countermeasures to communicate and enforce lower speeds where appropriate.	Engineering/ Enforcement
	3.4 Evaluate the use of intelligent transportation systems (ITS) to alert traffic of errant vehicles.	Engineering
4. Improve public awareness and	4.1 Add extra information on roadway departure to the "Rules of The Road" booklet to educate drivers.	Education
communication	4.2 Expand the use of intelligent transportation systems (ITS) to provide real time information of potential crashes to EMS.	Emergency Medical Service (EMS)



Impaired Driver

BACKGROUND

To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area. Impaired-driver crashes occur when at least one of the drivers is impaired by alcohol, drugs, or medication. In Illinois, alcohol remains the largest contributor to impaired-driving fatalities and serious injuries. In the United States, alcohol-impaired driving is among the most common contributor to motor vehicle crashes. These crashes are estimated to cost the public more than \$50 billion annually. Despite the hundreds of millions of dollars spent on efforts to reduce alcohol-related crashes, the problem has proved resistant to change.

Fatalities and serious injuries involving impaired drivers represent 44% of overall traffic fatalities in Illinois and therefore is a *Priority Level One*.

FIGURE IM-01

Impaired Driver Priority Level

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Pedalcyclist

Work Zone

Distracted/Fatigued/ Drowsy Driver

Highway-Railroad Grade Crossings



Speeding/Aggressive Driver

Older Driver

Younger Driver

Motorcycle

Heavy Vehicle

Pedestrian



Roadway Departure

IMPAIRED DRIVER

Unrestrained Occupants

Intersection Related



FATALITIES OF IMPAIRED DRIVERS

(referring to the impaired drivers who were the victims/fatalities)

Alcohol Impaired:

62%

Drug Impaired:

38%

ILSHSP IMPAIRED DRIVER SAFETY TARGETS

Fatalities:

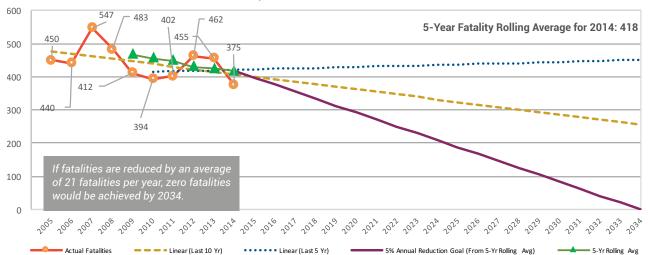
Reducing 5-year rolling average from 418 in 2014 to less than 293 by 2020

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 1,666 in 2014 to less than 1,167 by 2020

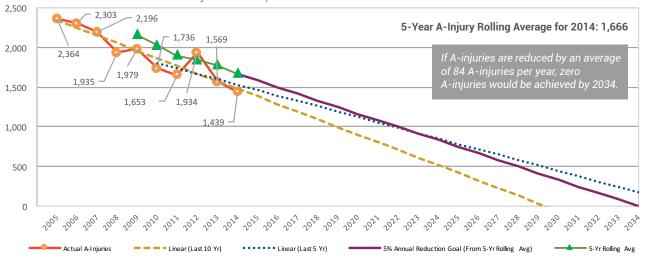
Progress

FIGURE IM-O2 Fatalities in Impaired Driver Crashes from 2005 to 2014



Illinois has implemented a number of multidisciplinary strategies to address impaired-driver fatalities and serious injuries. From 2005 to 2014, impaired-driver fatalities have decreased 17%, and impaired driver A-injuries have decreased 39%. Illinois has successfully reduced the number of drinking drivers through a comprehensive approach including highly visible, media-supported enforcement saturation patrols and roadside DUI safety checks; integrated impaired driving and nighttime seat belt enforcement; increased alcohol tax; highly supervised DUI courts; and mandatory ignition interlock devices for all convicted offenders. Enhanced efforts to reduce medicated and drug-impaired driving include strengthened Drug Recognition Expert (DRE) officer training.







Issues and Contributing Factors to be Addressed

TABLE IM-01

Number of Fatalities in Impaired Driver Crashes on State and Local Urban/ Rural Roadways from 2010 to 2014

Fatalities	Sta	te Roadways	5	L	Local Roadways				
rataiities	Urban	Rural	Total	Urban	Rural	Total	Total		
2010	116	72	188	93	113	206	394		
	(29%)	(18%)	(48%)	(24%)	(29%)	(52%)	(100%)		
2011	99	78	177	109	116	225	402		
	(25%)	(19%)	(44%)	(27%)	(29%)	(56%)	(100%)		
2012	116	88	204	122	136	258	462		
	(25%)	(19%)	(44%)	(26%)	(29%)	(56%)	(100%)		
2013	54	154	208	141	106	247	455		
	(12%)	(34%)	(46%)	(31%)	(23%)	(54%)	(100%)		
2014	57	121	178	110	87	197	375		
	(15%)	(32%)	(47%)	(29%)	(23%)	(53%)	(100%)		
Total	442	513	955	575	558	1,133	2,088		
	(21%)	(25%)	(46%)	(28%)	(27%)	(54%)	(100%)		

As shown in Table IM-01 and Table IM-02, over 54% of impaired fatalities and serious injuries occurred between 2010 and 2014 on the local roadways versus state roadways. Urban local roadways have the highest number of fatalities and A-injuries.

TABLE IM-02

Number of A-Injuries in Impaired Driver Crashes on State and Local Urban/ Rural Roadways from 2010 to 2014

A Injurios	Sta	te Roadways	;	L	Local Roadways				
A-Injuries	Urban	Rural	Total	Urban	Rural	Total	Total		
2010	667	278	945	377	414	791	1,736		
	(38%)	(16%)	(54%)	(22%)	(24%)	(46%)	(100%)		
2011	434	257	691	541	421	962	1,653		
	(26%)	(16%)	(42%)	(33%)	(25%)	(58%)	(100%)		
2012	398	391	789	602	543	1,145	1,934		
	(21%)	(20%)	(41%)	(31%)	(28%)	(59%)	(100%)		
2013	297	445	742	467	360	827	1,569		
	(19%)	(28%)	(47%)	(30%)	(23%)	(53%)	(100%)		
2014	246	406	652	464	323	787	1,439		
	(17%)	(28%)	(45%)	(32%)	(22%)	(55%)	(100%)		
Total	2,042	1,777	3,819	2,451	2,061	4,512	8,331		
	(25%)	(21%)	(46%)	(29%)	(25%)	(54%)	(100%)		

The following list includes some additional high-priority trends and issues for impaired-driver crashes. Numbers and percentages reflect impaired-driver-related fatalities and serious injuries from 2010 to 2014.

The Chicagoland area (Cook, DuPage, and Will counties) experienced 33% of the impaired-driver-involved fatalities and serious injuries:

- 48% resulted from roadway departure crashes.
- 19% involved speeding or aggressive driving.
- **22%** involved unrestrained occupants.

Of all the impaired-driver-related fatalities and serious injuries, 48% occurred over the weekend.

63% of the impaired-driver-involved fatalities and serious injuries occurred between the hours of 8 p.m. and 5 a.m.:

- 24% occurred between Friday 8 p.m. and Saturday 5 a.m.
- 28% occurred between Saturday 8 p.m. and Sunday 5 a.m.



■ 11% occurred between Sunday 8 p.m. and Monday 5 a.m.

A majority of the impaired-driver-involved fatalities and serious injuries occurred in urban areas (53%), and 71% of these occurred on arterials.

- Among those on arterials, 39% were on local roadwavs.
 - 49% of those on local roadways were roadway departure and 37% were intersection related.
 - Among those roadway departures, 66% were fixed-object collisions.
- Among those in urban areas, 14% were on interstates and freeways.

In rural areas, 64% of the impaired-driver-involved fatalities and serious injuries occurred on arterials. 23% occurred on local roadways.

- Among these fatalities and serious injuries on rural arterials
 - 78% were roadway departure
 - 54% of those were fixed-object collisions and 32% were unrestrained occupants.
 - 28% involved unrestrained occupants.
 - 16% involved speeding and/or aggressive drivers.
- Among those on rural on local roadways
 - 85% were roadway departure
 - 70% of those were fixed-object collisions and 38% were unrestrained occupants.

Objectives and **Strategies**

Illinois continues to strive to enhance impaired-driver safety. Table IM-03 identifies some key objectives and potential strategies to address the contributing factors associated with impaired-driver-related fatalities and serious injuries.

This data-driven, collaborative approach will help Illinois achieve impaired-driver fatality and A-injury goals and ultimately drive Zero Fatalities to a reality.

TABLE IM-O3 Objectives and Strategies to Address Impaired Driver Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Prevent excessive and underage	1.1 Enforce responsible beverage service policies and check compliance for alcohol servers and retailers.	Enforcement
drinking and driving	1.2 Conduct public outreach on the mandatory use of ignition interlock for all DUI offenders to deter drinking and driving.	Education
	1.3 Employ screening and brief interventions in health care settings.	Education/EMS
	1.4 Control hours, locations, and promotion of alcohol sales.	Enforcement
	1.5 Provide a variety of initiatives to reduce excessive alcohol use and impaired driving within high school and collegiate settings.	Education/ Enforcement
	1.6 Expand (or improve) education of the consequences of underage drinking to address these consequences.	Education
	1.7 Consider emerging technologies that will continue to reduce impaired driving.	Education/ Enforcement
2. Enforce DUI laws	2.1 Expand high-visibility DUI enforcement saturations including roadside safety checks.	Enforcement
	2.2 Strengthen and expand law enforcement training to promote effective alcohol and/or drug-impairment driving detection and arrest.	Enforcement
	2.3 Expand training and technical assistance for law enforcement and prosecutors to implement DUI No-Refusal search warrant programs and processes in their communities.	Enforcement
	2.4 Expand nighttime seat belt enforcement to detect unbelted drinking drivers.	Enforcement
	2.5 Publicize and enforce zero tolerance laws for drivers under age 21.	Education/ Enforcement
3. Prosecute, impose sanctions on, and treat DUI offenders	3.1 Continue to suspend driver's license administratively upon arrest or refusal of blood-alcohol concentration (BAC) test.	Enforcement
treat DOI Offeriders	3.2 Expand judicial education and outreach to promote the use of alcohol ignition interlock as well as highly supervised DUI and Drug Courts to monitor offenders.	Enforcement
	3.3 Provide training, technical assistance, and support to those who prosecute DUI offenses .	Enforcement
	3.4 Explore ways to reduce the total number of Statutory Summary Suspension rescissions.	Enforcement
	3.5 Eliminate diversion programs and plea bargains to nonalcoholic offenses.	Enforcement
	3.6 Continue to screen all convicted DUI offenders for alcohol problems and require treatment when appropriate.	Enforcement



Objectives (What)	Strategies (How)	Implementation Area(s)
4. Control high-BAC (0.16 or greater) and repeat offenders	4.1 Seize vehicles or vehicle license plates administratively upon arrest.	Enforcement
5. Increase educational efforts, policies and expand/	5.1 Partner with other agencies and employers to suggest policies and procedures aimed at reducing impaired driving by their employees.	Education
continue paid media	5.2 Improve public awareness of and access to alternate forms of transportation.	Education
exposure for public outreach regarding the consequences of and alternatives to driving impaired	5.3 Continue Governor's Impaired Driving Task Force to increase public awareness of the consequences of impaired driving and continue to expand public relations efforts that supports the consequences of driving impaired.	Education
	5.4 Continue and expand comprehensive paid and earned media efforts in support of law enforcement.	Enforcement







BACKGROUND

To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area.

An unrestrained-occupant crash is defined as a crash where the injured person had no safety equipment present, safety belt was not used, or child restraint was used improperly or not at all.

Safety equipment is proven to save lives. Seat belts reduce the risk of fatal injury to front-seat passenger car occupants by 45% and light-truck occupants by 60%.

In Illinois, the majority of the unrestrained-occupant crashes involved occupants who did not use a seat belt. Most of the fatalities and A-injuries involved the drivers. More than half of unrestrained-occupant fatal and A-injury crashes occurred on a Friday, Saturday, or Sunday.

Unrestrained-occupant safety is a *Priority Level One* ILSHSP emphasis area based on the proportion of unrestrained-occupant related fatalities and serious injuries in relation to the overall statewide fatalities and serious injuries.

FIGURE UO-01 Unrestrained Occupant Priority Level

Pedalcyclist

Work Zone

Distracted/Fatigued/ Drowsy Driver

Highway-Railroad

Grade Crossings

Speeding/Aggressive Driver

Older Driver

Younger Driver

Motorcycle

Heavy Vehicle

Pedestrian



Roadway Departure

Impaired Driver

UNRESTRAINED OCCUPANTS

Intersection Related



ILSHSP UNRESTRAINED OCCUPANT SAFETY TARGETS

Fatalities:

Reducing 5-year rolling average from 275 in 2014 to less than 193 by 2020

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 1,008 in 2014 to less than 706 by 2020

Progress

FIGURE UO-O2 Unrestrained Occupant Fatalities from 2005 to 2014

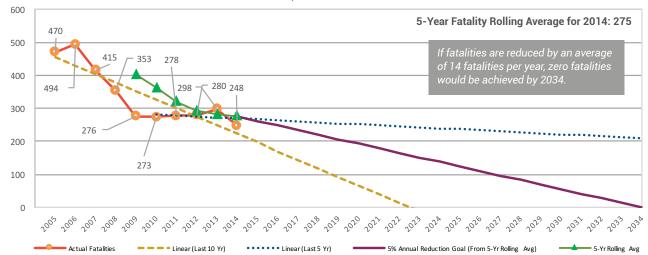
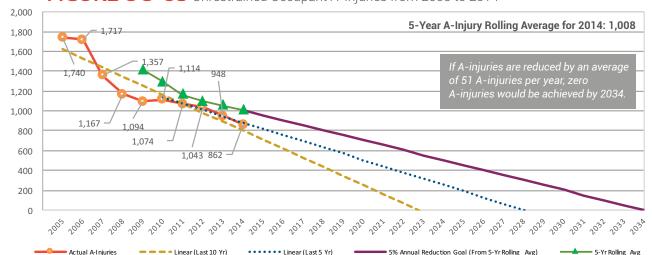


FIGURE UO-O3 Unrestrained Occupant A-Injuries from 2005 to 2014



Illinois has a goal to eliminate ALL traffic-related unrestrained-occupant fatalities.

Illinois has implemented a number of multidisciplinary strategies contributing to a reduction in unrestrainedoccupant fatalities and injuries. From 2005 to 2014 unrestrained-occupant fatalities decreased 47%, and unrestrained-occupant A-injuries decreased 50%. The 2005 Seat Belt Observational Survey showed a statewide compliance rate of 86%. Illinois has continued to strengthen its "Click It or Ticket" (CIOT) campaigns, offering stepped-up belt and child seat enforcement, together with aggressive media, public information, and education campaigns to inform motorists of the benefits of using safety restraints and to strengthen public perception of receiving a ticket for seatbelt violations. The Seat Belt Observational Survey, conducted in June of 2014, showed an increase in daytime, front seat belt compliance of 94.1%. During the last three years, Illinois has shifted over 80% of its state and local enforcement activities to late-night hours (9pm-6am), when occupant safety compliance is at its lowest. Child passenger safety has been enhanced with child safety seat education, distribution of child safety seats, and the child passenger safety (CPS) program.

Issues and Contributing Factors to be Addressed

TABLE UO-01

Number of Unrestrained Occupant Fatalities on State and Local Urban/ Rural Roadways from 2010 to 2014

Fatalities	State Roadways			Local Roadways			
	Urban	Rural	Total	Urban	Rural	Total	Total
2010	68	70	138	48	87	135	273
	(25%)	(26%)	(51%)	(18%)	(32%)	(49%)	(100%)
2011	55	59	114	69	95	164	278
	(20%)	(21%)	(41%)	(25%)	(34%)	(59%)	(100%)
2012	62	70	132	59	89	148	280
	(22%)	(25%)	(47%)	(21%)	(32%)	(53%)	(100%)
2013	27	115	142	66	90	156	298
	(9%)	(39%)	(48%)	(22%)	(30%)	(52%)	(100%)
2014	35	90	125	54	69	123	248
	(14%)	(36%)	(50%)	(22%)	(28%)	(50%)	(100%)
Total	247	404	651	296	430	726	1,377
	(18%)	(29%)	(47%)	(21%)	(31%)	(53%)	(100%)

TABLE UO-02

Number of Unrestrained Occupant A-Injuries on State and Local Urban/ Rural Roadways from 2010 to 2014

A-Injuries	State Roadways			Local Roadways			
	Urban	Rural	Total	Urban	Rural	Total	Total
2010	393	212	605	229	280	509	1,114
	(35%)	(19%)	(54%)	(21%)	(25%)	(46%)	(100%)
2011	253	183	436	357	281	638	1,074
	(24%)	(17%)	(41%)	(33%)	(26%)	(59%)	(100%)
2012	184	223	407	316	320	636	1,043
	(18%)	(21%)	(39%)	(30%)	(31%)	(61%)	(100%)
2013	142	237	379	337	232	569	948
	(15%)	(25%)	(40%)	(36%)	(24%)	(60%)	(100%)
2014	118	256	374	300	188	488	862
	(14%)	(30%)	(43%)	(35%)	(22%)	(57%)	(100%)
Total	1,090	1,111	2,201	1,539	1,301	2,840	5,041
	(22%)	(22%)	(44%)	(31%)	(26%)	(56%)	(100%)

As shown in **Table UO-01** and **Table UO-02,**proximately 53% of the

approximately 53% of the unrestrained-occupant fatalities and approximately 56% of unrestrained-occupant-related A-injuries occurred between 2010 and 2014 on local roadways versus the state roadways. More fatalities occurred in rural areas (60%) while more A-injuries occurred in urban areas (53%).

The following list includes some additional high-priority trends and issues for unrestrained-occupant crashes. Numbers and percentages reflect unrestrained-occupant fatalities and serious injuries from 2010 to 2014.



Seat belts not used at the time of crashes accounted for **85%** of all unrestrained occupant fatalities and serious injuries. The other 15% occurred when there was no safety equipment present, child restraints were not used or child restraints were not used properly.

Young drivers 16-20 years (9%) and 21-25 years (11%) jointly, accounted for 19% of unrestrained-occupant fatalities and serious injuries.

62% of unrestrained-occupant fatalities and serious injuries were **drivers**; **38%** were **passengers**.

- Of the unrestrained drivers, 72% were male and 28% were female.
- Of the unrestrained passengers, 52% were male and 47% were female.

49% of the unrestrained-occupant fatalities and serious injuries occurred in **urban areas**.

- Among the fatalities and serious injuries in urban areas, 42% occurred on state roadways, and 58% occurred on local roadways.
 - On state roadways in urban areas, the unrestrained-occupant fatalities and serious injuries decreased by **67%**, which is approximately a **17%** annual reduction from 2010 to 2014.
 - On local roadways in urban areas, the unrestrained-occupant-related fatalities and serious injuries increased by 28%, which is about a 7% increase per year from 2010 to 2014.

In urban areas, the majority of unrestrained-occupant fatalities and serious injuries on local roadways occurred on **arterials (64%)**. Among these fatalities and serious injuries on arterials:

- 64% were non-intersection-related (i.e., roadway segment related); of those, 65% were road departure crashes.
 - **76%** of these road departure crashes resulted in roadside **fixed-object** collisions.

In urban areas, the majority of unrestrained-occupant fatalities and serious injuries on state roadways occurred on **arterials (69%).** Among these fatalities and serious injuries on arterials:

- 48% were non-intersection-related (i.e., roadway segment related); of those, 72% were roadway departure collisions.
- **60%** of these roadway departure crashes resulted in roadside **fixed-object** collisions.

53% of unrestrained-occupant fatalities and serious injuries occurred on **Fridays**, **Saturdays**, **and Sundays**. On Saturdays and Sundays, **56%** of the fatalities and serious injuries occurred from **midnight to 5 a.m**.

April to May accounted for **18%** of total unrestrained-occupant fatalities and serious injuries.

Passenger cars accounted for **58%** of total reported unrestrained-occupant fatalities and serious injuries.

Objectives and **Strategies**

Illinois continues to strive to reduce the number of unrestrained occupants in vehicles.

Table UO-O3 identifies some key objectives and potential strategies to address the contributing factors associated with unrestrained-occupant-related fatalities and serious injuries.

This data-driven, collaborative approach will help Illinois achieve unrestrained-occupant fatality and A-injury goals and ultimately drive Zero Fatalities to a reality.

TABLE UO-O3 Objectives and Strategies to Address Unrestrained Occupant Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
Increase use of occupant restraints	1.1 Conduct highly publicized enforcement campaigns with highly visible marketing to increase restraint use.	Education
by all vehicle occupants	1.2 Increase enforcement for no seat belt use.	Enforcement
	1.3 Encourage employer programs that require seat belt use.	Education/ Enforcement
	1.4 Improve restraint-usage data collection, integration, analysis, and sharing between agencies at all levels.	Education/ Enforcement
	1.5 Develop restraint-use awareness materials to distribute with impaired-driving information.	Education/ Enforcement
2. Ensure that restraints, especially	2.1 Provide community locations for instruction in proper child restraint use, including both public safety agencies and health care providers.	Education
child and infant restraints, are properly used	2.2 Continue to conduct high-profile "child restraint inspection" events at multiple community locations.	Education
3. Increase awareness of the consequences	3.1 Provide enhanced public education to population groups with lower-than-average restraint use rates.	Education
of unrestrained occupants	3.2 Provide access to appropriate information, materials, and guidelines for those implementing programs to increase occupant restraint use.	Education
	3.3 Encourage the use of interactive educational tools.	Education
	3.4 Increase public awareness of consequences of non-usage (e.g. fines, injury, death).	Education
	3.5 Educate children, parents and guardians on the importance of using seat belts.	Education
4. Decrease the likelihood and/or	4.1 Increase the use of low-cost safety strategies to reduce roadway departure crashes.	Engineering
severities involving unrestrained occupants	4.2 Investigate opportunities to utilize technology to increase proper seat belt usage.	Engineering







Intersection Related

BACKGROUND

To ultimately achieve Zero
Fatalities on all Illinois roadways,
Illinois has set ILSHSP statewide
targets for each emphasis area.
There are more intersection-related
fatalities relative to other ILSHSP
emphasis areas. Crashes at
or near intersections have a
significant impact on the
traveling public.



An intersection crash is defined by the responding officer as a crash that occurs at an intersection or a crash related to an intersection. Some collision types and severities may be more frequent than others, depending on the type of intersection. Intersections create a unique situation for users because there are many different types which include rural, urban, signalized, unsignalized, and skewed approaches, among others. These intersection types create an abundance of conflict points, possibly confusing the driver and leading to a crash. Reducing the number of conflict points can help reduce the number of crashes.

The National Cooperative Highway Research Program (NCHRP) developed an initiative for automated traffic law enforcement systems. As a part of this initiative, Illinois legislators passed the use of "Red Light Running" cameras in Cook, DuPage, Kane, Lake, Madison, McHenry, St. Clair, and Will counties.

In addition, several Road Safety Assessments (RSA) have been conducted at high-priority

intersections to identify and implement improvements.

Intersection-related fatalities and serious injuries represent 42% of overall fatalities and serious injuries in Illinois and therefore is a *Priority Level One*.

FIGURE IN-01

Intersection Related Priority Level

Pedalcyclist

Work Zone

Distracted/Fatigued/ Drowsy Driver

Highway-Railroad Grade Crossings



Speeding/Aggressive Driver

Older Driver

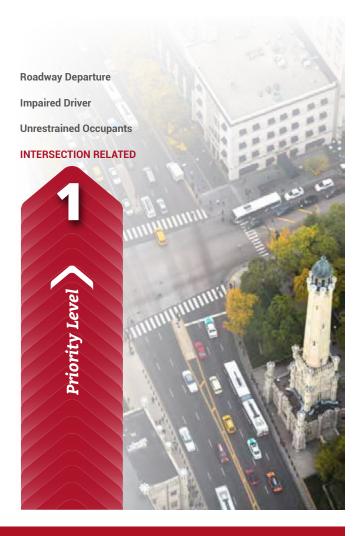
Younger Driver

Motorcycle

Heavy Vehicle

Pedestrian





ILSHSP INTERSECTION RELATED SAFETY TARGETS

Fatalities:

Reducing 5-year rolling average from 236 in 2014 to less than 165 by 2020

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 5,279 in 2014 to less than 696 by 2020



Progress

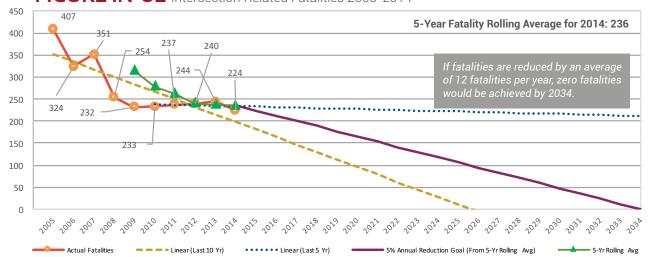
Illinois has continued to see a downward trend in intersection-related fatal and A-injury crashes with the multidisciplinary approaches to implement corridor and systemic improvements. An Intersection Implementation Plan was created to accomplish coordinated law enforcement efforts, data

improvement, RSA completion for high-priority locations, research program initiatives, and a variety of roadway safety recommendations. RSA recommendations for intersection-related crashes include LED traffic signals, automated traffic law enforcement systems, interconnected/coordinated

Illinois has
a goal to
eliminate ALL
traffic-related
intersection fatalities.

Progress (continued)

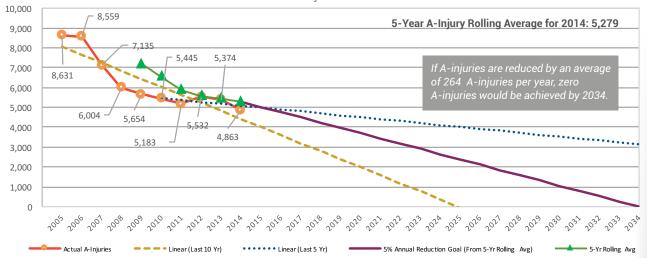
FIGURE IN-O2 Intersection Related Fatalities 2005-2014



signals, offset right- and left-turn lanes, several left-turn lane improvements, in-pavement lighting, nighttime roadway lighting, improved pedestrian crosswalk signals, rumble strips, roundabouts, and yield bars at divided roadway crossings.

In addition, RSAs were conducted in specialized areas, such as high-priority intersections including rural roadways; the Illinois Medical District in Chicago, and cities as in Bloomington.

FIGURE IN-03 Intersection Related A-Injuries 2005-2014





Issues and Contributing Factors to be Addressed

State Roadways

TABLE IN-01

Number of Intersection Related Fatalities on State and Local Urban/ Rural Roadways from 2010 to 2014

Fatalities	Urban	Rural	Total	Urban	Rural	Total	Total
2010	115	32	147	54	32	86	233
	(49%)	(14%)	(63%)	(23%)	(14%)	(37%)	(100%)
2011	72	49	121	85	31	116	237
	(30%)	(21%)	(51%)	(36%)	(13%)	(49%)	(100%)
2012	80	36	116	90	34	124	240
	(33%)	(15%)	(48%)	(38%)	(14%)	(52%)	(100%)
2013	65	42	107	106	31	137	244
	(27%)	(17%)	(44%)	(43%)	(13%)	(56%)	(100%)
2014	65	58	123	73	28	101	224
	(29%)	(26%)	(55%)	(33%)	(13%)	(45%)	(100%)
Total	397	217	614	408	156	564	1,178
	(34%)	(18%)	(52%)	(35%)	(13%)	(48%)	(100%)

Local Roadways

TABLE IN-02

Number of Intersection Related A-Injuries on State and Local Urban/ Rural Roadways from 2010 to 2014

A Injuries	State Roadways			Local Roadways			
A-Injuries	Urban	Rural	Total	Urban	Rural	Total	Total
2010	2,654	509	3,163	1,808	474	2,282	5,445
	(49%)	(9%)	(58%)	(33%)	(9%)	(42%)	(100%)
2011	1,867	407	2,274	2,431	478	2,909	5,183
	(36%)	(8%)	(44%)	(47%)	(9%)	(56%)	(100%)
2012	1,751	605	2,356	2,702	474	3,176	5,532
	(32%)	(11%)	(43%)	(49%)	(9%)	(57%)	(100%)
2013	1,703	547	2,250	2,652	472	3,124	5,374
	(32%)	(10%)	(42%)	(49%)	(9%)	(58%)	(100%)
2014	1,420	591	2,011	2,397	455	2,852	4,863
	(29%)	(12%)	(41%)	(49%)	(9%)	(59%)	(100%)
Total	9,395	2,659	12,054	11,990	2,353	14,343	26,397
	(36%)	(10%)	(46%)	(45%)	(9%)	(54%)	(100%)

As shown in **Table IN-01** and **Table IN-02**, 52% of intersection fatalities occurred on the state roadway systems, and 54% of intersection A-injuries occurred on the local roadway system between 2010 and 2014. State roadways in urban areas have the highest number of intersection fatalities, and local roadways in urban areas have the highest number of intersection A-injuries.

The following list includes some additional high-priority trends and issues for intersection-related crashes. Numbers and percentages reflect intersection-related fatalities and serious injuries from 2010 to 2014.



80% of intersection-related fatalities and serious injuries occurred in urban areas.

- 56% of the urban area fatalities and serious injuries occurred at **signalized** intersections.
 - The majority of these fatalities and serious injuries were caused by failing to yield right-of-way (33%) and disregarding the traffic signal (21%).

20% of intersection-related fatalities and serious injuries were in **rural areas**.

- 52% of the rural area fatalities and serious injuries occurred at **stop-controlled** (stop-sign or flasher) intersections.
 - 28% of these fatalities and serious injuries were caused by disregarding stop signs.

19% of fatalities and serious injuries were **single- vehicle** crashes.

- 40% of the single-vehicle fatalities and serious injuries were from **pedestrian** crashes.
 - 58% of these fatalities and serious injuries were from collisions with pedestrian(s) in crosswalks.

68% of fatalities and serious injuries were caused by **two-vehicle** crashes.

■ 39% of the two-vehicle fatalities and serious injuries were from **angle** crashes.

29% of the **intersection related** fatalities and serious injuries occurred at **night**.

- 60% of the fatalities and serious injuries that occurred during darkness had roadway lighting.
 - 62% of those fatalities and serious injuries occurred within the Chicagoland area (Cook, DuPage, and Will Counties).
 - **22%** of them involved **impaired drivers**.
 - **22%** of them involved **young drivers**.
 - 15% of them involved speeding and/or aggressive drivers.

Objectives and **Strategies**

Illinois continues to strive to enhance intersection safety.

Table IN-O3 identifies some key objectives and potential strategies to address the contributing factors associated with intersection-related fatalities and serious injuries.

This data-driven, collaborative approach will help Illinois achieve intersection fatality and serious injury goals and ultimately drive Zero Fatalities to a reality.

TABLE IN-O3 Objectives and Strategies to Address Intersection Related Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Enhance intersection safety performance	1.1 Improve signal timing and vehicle detection, implementing all-red timing, adding protected turn phases when appropriate, and coordinating signal phasing between successive intersections or along corridors.	Engineering
	1.2 Evaluate intersection user lines of sight to traffic control devices and approaching motorists, pedestrians, and pedalcyclists.	Engineering
	1.3 Revise design of intersection geometry and skew of the road.	Engineering
	1.4 Provide/improve left- and right-turn channelization and storage.	Engineering
	1.5 Evaluate pavement design for intersection friction value and consider high friction surface treatment where appropriate.	Engineering
	1.6 Evaluate existing intersection locations with high crash trends.	Engineering
	1.7 Incorporate access management techniques including median construction, driveway closures or consolidations, and/or imposing left-turning restrictions.	Engineering
	1.8 Evaluate and implement pedestrian and pedalcyclist accommodations.	Engineering
	1.9 Consider nontraditional intersection types where appropriate, such as roundabouts, J-turns, median U-turn intersections, jughandles, displaced left turn intersections, offset tee intersections, continuous flow intersections, and diverging diamond interchanges.	Engineering
	1.10 Improve conspicuity of the intersection and its users through a variety of approaches such as lighting, advance warning devices and upgrading of intersection signal head placement.	Engineering
	1.11 Consider intersection signing improvements to improve safety.	Engineering
2. Increase traffic	2.1 Evaluate red light cameras at intersection.	Enforcement
law compliance near intersections	2.2 Increase law enforcement presence and enforcement at known high crash intersections.	Enforcement
	2.3 Develop a procedure for law enforcement officers to request engineering assessments of crash sites.	Enforcement/ Education
3. Increase awareness and	3.1 Establish education campaign for intersection safety.	Education
education	3.2 Increase intersection information in the Rules of the Road.	Education
	3.3 Improve content and testing of driver education regarding intersection safety.	Education
	3.4 Implement training and education for innovative intersection configurations.	Education



Speeding/ Aggressive Driver

BACKGROUND

To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area.

Speeding and aggressive driving are identified where the primary cause of a crash involves speeds exceeding the authorized speed limit, exceeding safe speed for conditions, failing to reduce speed to avoid crash, or operating a vehicle in an erratic, reckless, careless, negligent, or aggressive manner. Speeding results in greater potential of losing control of the vehicle, less time for driver response for crash avoidance, the need for increased stopping distance, and increased crash severity.

Aggressive drivers often commit a combination of unsafe moving traffic offenses that endanger themselves, their occupants, and other roadway users. Crashes are more likely to be severe as speed of impact increases.

National research suggests that drivers who speed (defined as 10 mph or more above the posted speed) perceive posted speed limits as more of a minimum speed and have different beliefs about how fast they can drive before receiving a ticket and how fast they can safely travel.

Speeding and aggressive-driver-related fatalities and serious injuries represent 21% of overall fatalities and serious injuries in Illinois and therefore is a *Priority Level Two*.

Illinois has a goal to **eliminate ALL** speedingand aggressive-driver-involved **fatalities**.

FIGURE SA-01

Pedalcyclist

Work Zone

Distracted/Fatigued/ Drowsy Driver

Speeding/Aggressive Drive Priority Level

SPEEDING/AGGRESSIVE DRIVER

Older Driver

Younger Driver

Motorcycle

Heavy Vehicle

Pedestrian





Roadway Departure

Impaired Driver

Unrestrained Occupants

Intersection Related





Fatalities:

Reducing 5-year rolling average from 222 in 2014 to less than 156 by 2020

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 2,577 in 2014 to less than 1,804 by 2020

Progress



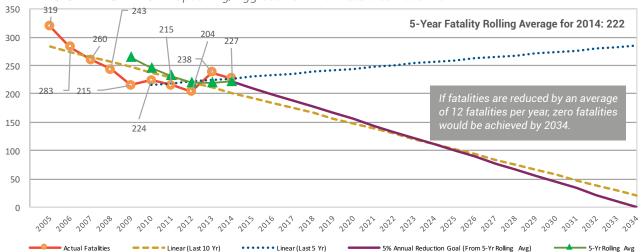
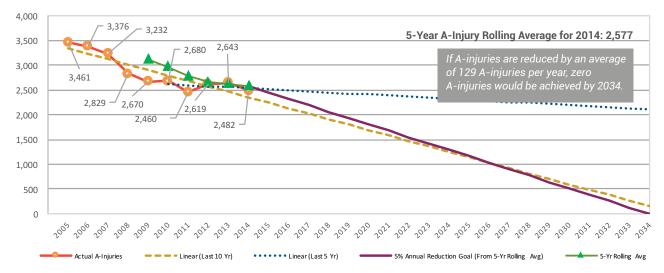


FIGURE SA-03 Speeding/Aggressive Driver A-Injuries 2005-2014



Illinois has implemented a number of multidisciplinary strategies to address speeding- and aggressive-driver fatalities and serious injuries. From 2005 to 2014, speeding- and aggressive- driver fatalities decreased 29%, and speeding- and aggressive-driver A-injuries decreased 28%. Illinois has increased fines for speeding in work zones throughout the state and coupled the increased fines with photo speed enforcement. Photo speed enforcement also is being implemented in the City of Chicago in designated pedestrian safety zones. LED speed indicator boards have been installed in strategic locations to increase driver awareness and reduce speeds, when necessary. Highly visible speed enforcement and public and media outreach campaigns continue to be a cornerstone of Illinois' speed reduction efforts.

Issues and Contributing Factors to be Addressed

TABLE SA-01

Number of Fatalities in Speeding/Aggressive Driver Crashes on State and Local Urban/Rural Roadways from 2010 to 2014

TABLE SA-02

Number of A-Injuries in Speeding/Aggressive Driver Crashes on State and Local Urban/Rural Roadways from 2010 to 2014

Fatalities	State Roadways			L			
rataiities	Urban	Rural	Total	Urban	Rural	Total	Total
2010	75	33	108	56	60	116	224
	(33%)	(15%)	(48%)	(25%)	(27%)	(52%)	(100%)
2011	61	24	85	66	64	130	215
	(28%)	(11%)	(40%)	(31%)	(30%)	(60%)	(100%)
2012	42	34	76	76	52	128	204
	(21%)	(17%)	(37%)	(37%)	(25%)	(63%)	(100%)
2013	38	64	102	69	67	136	238
	(16%)	(27%)	(43%)	(29%)	(28%)	(57%)	(100%)
2014	29	65	94	79	54	133	227
	(13%)	(29%)	(41%)	(35%)	(24%)	(59%)	(100%)
Total	245	220	465	346	297	643	1,108
	(22%)	(20%)	(42%)	(31%)	(27%)	(58%)	(100%)

A Injurios	State Roadways			Local Roadways			
A-Injuries	Urban	Rural	Total	Urban	Rural	Total	Total
2010	1,194	382	1,576	642	462	1,104	2,680
	(45%)	(14%)	(59%)	(24%)	(17%)	(41%)	(100%)
2011	896	327	1,223	821	416	1,237	2,460
	(36%)	(13%)	(50%)	(33%)	(17%)	(50%)	(100%)
2012	708	534	1,242	872	505	1,377	2,619
	(27%)	(20%)	(47%)	(33%)	(19%)	(53%)	(100%)
2013	551	693	1,244	964	435	1,399	2,643
	(21%)	(26%)	(47%)	(36%)	(16%)	(53%)	(100%)
2014	460	654	1,114	954	414	1,368	2,482
	(19%)	(26%)	(45%)	(38%)	(17%)	(55%)	(100%)
Total	3,809	2,590	6,399	4,253	2,232	6,485	12,884
	(30%)	(20%)	(50%)	(33%)	(17%)	(50%)	(100%)

As shown in **Table SA-01**, 58% of the speeding/ aggressive-driver fatalities occurred on local roadways versus state roadways, and approximately 50% of speeding/aggressive-driver serious injuries occurred on state roadways and 50% on local roadways (Table SA-02). More speeding/aggressivedriver fatalities occurred in urban areas (53%), and 63% of speeding/aggressive-driver serious injuries occurred in urban areas.

The following list provides additional insights into speeding/aggressive-driver fatalities and serious injuries. Numbers and percentages reflect fatalities and serious injuries that involve one or more speeding and/or aggressive driver from 2010 to 2014.



62% of speeding/aggressive-driver involved fatalities and serious injuries occurred in **urban areas**. Among these, **47%** were on **state** roadways. Of those, **72%** were on **arterials** and **28%** occurred on **Interstate** routes. **20%** of urban area Interstate fatalities and serious injuries were **fixed-object** collisions.

- Among the speeding/aggressive fatalities and serious injuries on state route arterials in urban areas:
 - 53% were intersection-related
 - 23% involved young drivers.
 - **62%** were rear-end collisions.

38% of fatalities and serious injuries from speeding or aggressive driving were roadway departure; **24%** involved young drivers, and **14%** involved impaired drivers.

Within all speeding/aggressive-driver fatalities and serious injuries that involved an impaired driver, **81%**, of the fatalities and serious injuries involved impaired drivers were male, and for those roadway departure fatalities and serious injuries **68%** of the drivers were male.

25% of the speeding/aggressive fatalities and serious injuries occurred under **unfavorable pavement conditions** (wet, snow, mud, or ice):

- 31% of fatalities and serious injuries were rear-end, and 28% were fixed-object collisions.
- 19% occurred on curved roadway segments.

Of all the speeding- or aggressive-driving-related fatalities and serious injuries, **41%** occurred **between noon and 5 p.m.**

Objectives and **Strategies**

Illinois continues to strive
to enhance speeding and
aggressive driving safety.
Table SA-O3 identifies some
key objectives and potential
strategies to address the
contributing factors associated
with speeding and
aggressive-driver-involved
fatalities and serious injuries.

This data-driven, collaborative approach will help Illinois achieve speeding and aggressive-driver- related fatality and serious injury goals and ultimately drive Zero

TABLE SA-O3 Objectives and Strategies to Address Speeding/Aggressive Driver Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Deter speeding/	1.1 Increase high-visibility enforcement campaigns.	Enforcement
aggressive driving in the general population	1.2 Conduct educational and public information campaigns utilizing multimedia approaches.	Education
	1.3 Institute a statewide speed-management strategic initiative.	Education/ Engineering/ Enforcement
	1.4 Explore opportunities to expand automated and red-light running enforcement where appropriate.	Engineering/ Enforcement
	1.5 Investigate adequacy of all-red clearance intervals at high-risk signalized intersections.	Engineering
	1.6 Expand the use of speed monitoring through dynamic speed feedback signs.	Engineering/ Enforcement
2. Deter speeding/ aggressive driving in	2.1 Identify high-risk speed locations/corridors for enhanced enforcement.	Enforcement
specific populations, including those with	2.2 Educate and impose enhanced sanctions for repeat offenders.	Education/ Enforcement
a history of such behavior, and at specific locations	2.3 Install dynamic speed feedback signs and pursue use of speed display trailers on routes with high fatality rates.	Enforcement
	2.4 Evaluate roadway traffic calming measures to reduce high speed fatal and serious crashes.	Engineering
3. Improve the driving environment	3.1 Remove bottlenecks and Improve traffic flow to reduce motorist frustrations.	Engineering
to eliminate or minimize the external "triggers" of aggressive driving	3.2 Reduce nonrecurring delays and provide better information about these delays by the use of dynamic message signs.	Engineering
	3.3 Evaluate roadway traffic calming measures to reduce high speed fatal and serious crashes.	Engineering
1 #28) -3



Older Driver



BACKGROUND To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set

ILSHSP statewide targets for each emphasis area. Older drivers are of particular concern because of potential confusion, impaired vision, slower perception and reaction times, and fragility.

To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area. Older drivers are of particular concern because of potential confusion, impaired vision, slower perception and reaction times, and fragility.

Older-driver crashes are crashes involving at least one

driver who is 65 years of age or older. People over 65 represent the fastest-growing segment of the population in the United States. As people age, there are numerous factors that can hinder ones' ability to operate a motor vehicle. The ability to safely drive a car diminishes as strength and reaction time decrease,

and vision and hearing may become impaired. The primary risk factor facing older drivers is fragility – the susceptibility to injury due to a crash. Fragility makes surviving a crash more difficult. Older drivers should maintain their driving independence as long as they continue to drive safely and confidently.

FIGURE OD-01

Old Driver Priority Level

Pedalcyclist

Work Zone

Distracted/Fatigued/ Drowsy Driver

Highway-Railroad Grade Crossings







Illinois has a goal to **eliminate ALL** traffic-related related older-driver-involved **fatalities**.

The majority of older-driver fatalities and serious injuries tend to occur in urban areas; a large percentage are intersection-related fatalities and serious injuries. Additionally, many of these fatalities and serious injuries occur between noon and 5 p.m.

Older-driver-involved fatalities and serious injuries represent 16% of overall fatalities and serious injuries in Illinois and therefore is a *Priority Level Two*.

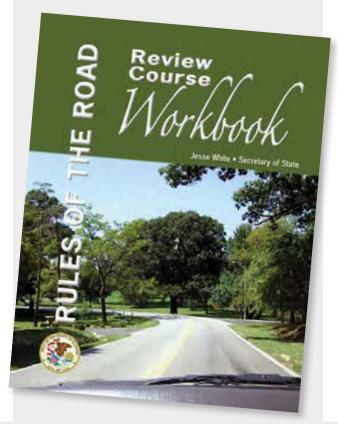
ILSHSP OLDER DRIVER SAFETY TARGETS

Fatalities:

Reducing 5-year rolling average from 170 in 2014 to less than 119 by 2020

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 1,919 in 2014 to less than 1,343 by 2020



Progress

Illinois has implemented a number of multidisciplinary and multi-stakeholder strategies to address older-driver fatalities and injuries. From 2005 to 2014, older-driver fatalities have decreased 19%. and serious injuries among older drivers have decreased 18%. Improvements in traffic control devices have been instrumental in improving signs, pavement marking visibility, and clarity for older drivers. Illinois has improved the driver's license renewal process for older drivers, requiring license renewal every 4 years between ages 69 and 80. Up to the age of 86, older drivers can renew for 2 years; after age 87, the license needs to be renewed annually. Drivers over 75 have to take a road test at the time of renewal. The Super Seniors Program was established to help improve driving skills for older drivers. Several communities offer senior transportation services for seniors who do not drive. For example, through the Chicago Department of Family & Support Service's Transportation Program, the City of Chicago works with the Chicago Transit Authority's (CTA) Taxi Access Program (TAP) to offer specialized transportation services for eligible seniors. The service provides specialized door-todoor transportation to seniors at reduced rates.

FIGURE OD-02 Older Driver Fatalities 2005-2014

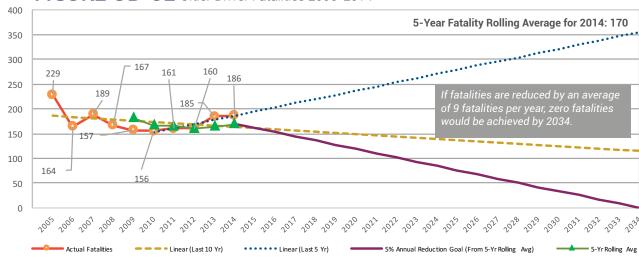
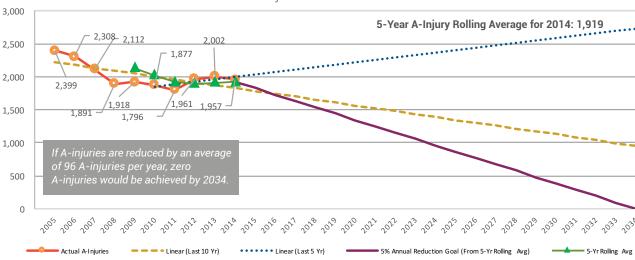


FIGURE OD-03 Older Driver A-Injuries 2005-2014



Issues and Contributing Factors to be Addressed

State Roadways

Rural

41

Urban

63

Fatalities

TABLE OD-01

Number of Fatalities in Older Driver Crashes on State and Local Urban/Rural Roadways from 2010 to 2014

2010 (40%) (26%) (67%)(22%) (12%)(33%)(100%)37 52 89 38 34 72 161 2011 (100%)(23%)(32%) (55%)(24%)(21%)(45%)48 51 99 35 26 61 160 2012 (30%)(32%)(62%)(22%)(16%)(38%)(100%)30 81 111 48 74 185 26 2013 (16%)(44%)(60%)(26%)(14%)(40%)(100%)32 92 124 38 24 62 186 2014 (100%)(17%)(49%)(67%)(20%)(13%)(33%)210 317 527 193 128 321 848 Total (38%)(100%)(25%)(37%) (62%)(23%) (15%)

Total

104

Urban

34

Local Roadways

Total

52

Total

156

Rural

18

TABLE OD-02

Number of A-Injuries in Older Driver Crashes on State and Local Urban/Rural Roadways from 2010 to 2014

A-Injuries	State Roadways			L			
A-injuries	Urban	Rural	Total	Urban	Rural	Total	Total
2010	858	295	1,153	537	187	724	1,877
	(46%)	(16%)	(61%)	(29%)	(10%)	(39%)	(100%)
2011	613	300	913	679	204	883	1,796
	(34%)	(17%)	(51%)	(38%)	(11%)	(49%)	(100%)
2012	564	383	947	809	205	1,014	1,961
	(29%)	(20%)	(48%)	(41%)	(10%)	(52%)	(100%)
2013	542	436	978	808	216	1,024	2,002
	(27%)	(22%)	(49%)	(40%)	(11%)	(51%)	(100%)
2014	459	521	980	751	226	977	1,957
	(23%)	(27%)	(50%)	(38%)	(12%)	(50%)	(100%)
Total	3,036	1,935	4,971	3,584	1,038	4,622	9,593
	(32%)	(20%)	(52%)	(37%)	(11%)	(48%)	(100%)

From 2010 to 2014 more than half of the older driver fatalities (62%) and serious injuries (52%) occurred on state roadways as shown in **Table OD-01** and **Table OD-02**. Slightly less older-driver fatalities (48%) occurred in urban areas while significantly more of the serious injuries (69%) occurred in urban areas.

The following list includes some additional high-priority trends and issues for older-driver crashes. Numbers and percentages reflect fatalities and serious injuries in older-driver crashes from 2010 to 2014.

A majority of the older-driver-involved fatalities and serious injuries (67%) occurred in **urban areas**.

- On state roadways in urban areas, the olderdriver- involved related fatalities and serious injuries decreased by 47% from 2010 to 2014.
- On local roadways in urban areas, the older-driverinvolved fatalities and serious injuries increased by 38% from 2010 to 2014.

In **urban** areas, the majority of older-driver-involved fatalities and serious injuries on state roadways (46%) occurred on **arterials (89%)**. A majority of these were **intersection related (72%)**. In addition, **65%** of the intersection-related fatalities and serious injuries



occurred at **signalized** intersections; **71%** of these signalized intersection fatalities and serious injuries were either **right angle** or **turning** related.

In **urban** areas, the majority of older-driver-involved fatalities and serious injuries on **local** roadways (54%) occurred on **arterials (84%)**. A majority of these were **intersection related (64%)**. In addition, 53% of the intersection-related fatalities and serious injuries occurred at **signalized** intersections. 70% of these signalized intersection fatalities and serious injuries were either **right angle** or **turning** related.

The other **33**% of the older-driver-involved fatalities and serious injuries occurred in rural areas.

- On state roadway in rural areas, the older-driverinvolved fatalities and serious injuries increased by 82% from 2010 to 2014.
- On local roadways in rural areas, the older-driverinvolved fatalities and serious injuries increased by 22% from 2010 to 2014.

Wednesdays, Thursdays, and Fridays accounted for 47% of total older-driver-involved fatalities and serious injuries; a significant portion of these fatalities and serious injuries occurred between noon and 5 p.m.

Older drivers were **14%** of all wrong-way driver fatalities and serious injuries.

Objectives and **Strategies**

Illinois continues to strive to enhance older-driver safety.

Table OD-O3 identifies some key objectives and potential strategies to address the contributing factors associated with fatalities and serious injuries in older-driver crashes.

This data-driven, collaborative approach will help Illinois achieve older-driver fatality and serious injury safety goals and ultimately drive Zero Fatalities to a reality.

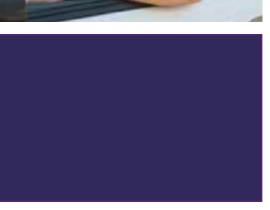
TABLE OD-O3 Objectives and Strategies to Address Older Driver Severe Crashes in Illinois

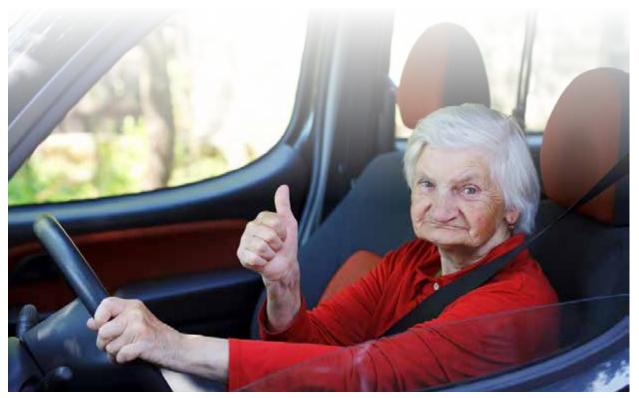
Objectives (What)	Strategies (How)	Implementation Area(s)
1. Plan for an aging population	1.1 Establish a broad-based coalition to plan for identifying and addressing older adults' transportation needs.	Education/ Enforcement
	1.2 Increase awareness about, and availability of, alternative transportation options.	Education
2. Increase public education and	2.1 Provide clear advance warning, advance guide, and street name signs.	Engineering
awareness, improve the roadway driving environment, to	2.2 Evaluate and provide all-red clearance intervals at signalized intersections where appropriate.	Engineering
better accommodate older drivers' special needs	2.3 Provide more protected left-turn signal phases and offset left-turn lanes at intersections.	Engineering
needs	2.4 Improve lighting and roadway design at railroad crossings and at intersections.	Engineering
	2.5 Improve roadway delineation.	Engineering
	2.6 Evaluate and determine the need for raised channelization.	Engineering
	2.7 Evaluate and improve traffic control in work zones.	Engineering
	2.8 Implement strategies to mitigate wrong-way driving.	Engineering
3. Identify older drivers at increased risk of crashing	3.1 Strengthen the role of medical reviews in assessing the potential impairment of older drivers and recommending appropriate licensing actions, from restricted licenses to full revocation.	Education/ Enforcement
and intervene, and reduce the risk of injury and death to	3.2 Promote/encourage mandatory reporting/referral of unsafe drivers to licensing for re-evaluation of driving skills.	Education/ Enforcement
older drivers and passengers involved in crashes	3.3 Evaluate and update procedures as appropriate for assessing medical fitness to drive (e.g. physician, and as appropriate, officer assessment and training).	Education/ Enforcement
	3.4 Enhance informational resources and conduct outreach for older driver safety screening for family, friends, physicians, and law enforcement to report at-risk drivers.	Education/ Enforcement
	3.5 Consider enhanced technology and vehicle engineering to improve safety for older drivers.	Engineering
	3.6 Increase seat belt use by older drivers and passengers.	Education/ Enforcement



Objectives (What)	Strategies (How)	Implementation Area(s)
4. Improve the driving competency	4.1 Make older drivers aware of improved or enhanced technology and vehicle engineering.	Education
of older adults in the general driving population	4.2 Provide educational opportunities to the general older driver population and their families to assess capabilities, improve skills, and voluntarily limit driving to safe driving conditions.	Education
	4.3 Supplement older driver classroom education with one-on-one, behind the wheel instruction.	Education
	4.4 Review and enhance driver's license testing and renewal policies for at-risk older drivers.	Education
	4.5 Evaluate the need for safe driving course for older drivers emphasizing skill- specific training to sharpen driving skills.	Education
	4.6 Evaluate the need to expand the use of variable driver's license restrictions (e.g. high speed roadways, night-time, geographic boundaries).	Enforcement









Young Driver

BACKGROUND

To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area. The elevated risk for young drivers is of particular concern due to specific risk factors, including: limited driving experience resulting in a lack of driving skills; heightened impulsivity and sensation-seeking behavior; greater willingness to engage in risky behavior (for example, distracted driving, speeding, no seat belt), and an overestimation of their ability to multi-task while driving.

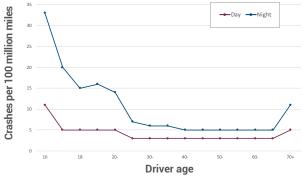


Young drivers' lack of experience makes it difficult to proactively identify hazardous conditions and safely react to them. As a result, young drivers are disproportionately involved in risky driving behavior. Their exposure to higher-risk driving environments, such as nighttime driving with multiple passengers, increases the likelihood of distraction, speeding, and ultimately crashing.

Young-driver crashes are defined as crashes in which at least one of the drivers is 16 to 20 years old.

Young-driver fatalities and serious injuries are often paired with unsafe behaviors, such as speeding and/or aggressive driving, impaired driving, distracted driving, and unrestrained occupants. Furthermore, the majority of these crashes occur in urban areas. Illinois

Nighttime Fatal Crashes



Source: National Highway Traffic Safety Administration

has dedicated analyses, strategies, and program implementation to address young-driver safety.

Young-driver-involved fatalities and serious injuries represent 20% of overall fatalities and serious injuries in Illinois and therefore is a *Priority Level Two*.

FIGURE YD-01

Young Driver Priority Level

Pedalcyclist

Work Zone

Distracted/Fatigued/ Drowsy Driver

Highway-Railroad Grade Crossings



Speeding/Aggressive Driver

Older Driver

YOUNG DRIVER

Motorcycle

Heavy Vehicle

Pedestrian





ILSHSP YOUNG DRIVER SAFETY TARGETS

Fatalities:

Reducing 5-year rolling average from 139 in 2014 to less than 98 by 2020

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 2,448 in 2014 to less than 1,714 by 2020

Illinois has a goal to
eliminate ALL traffic-related
young-driver-involved
fatalities.

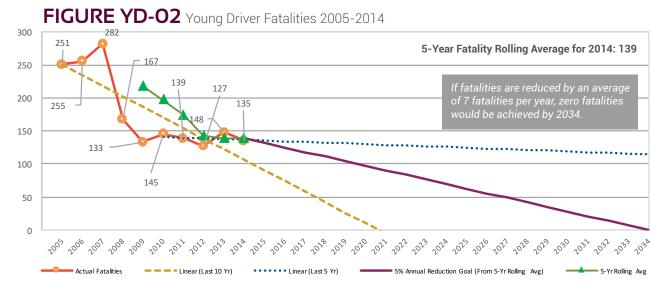
Progress

Illinois has implemented a number of multidisciplinary and multi-stakeholder strategies to address young-driver-involved fatalities and injuries. From 2005 to 2014, fatalities in this group have decreased 46% and A-injuries have decreased 53%. Traffic safety laws have been established and strengthened to protect both young drivers and the rest of the traveling public. These include improved graduated driver licensing

(GDL) restrictions, no cell phone use for novice drivers, a hand-held electronic communication ban and texting ban for all drivers, and high-visibility enforcement of impaired driving. These laws, aggressive enforcement, along with the Drivers Education Program, are some of the strongest in the nation to educate and protect young drivers. In fact, young drivers subject to the GDL represent 36% of the licensed young drivers

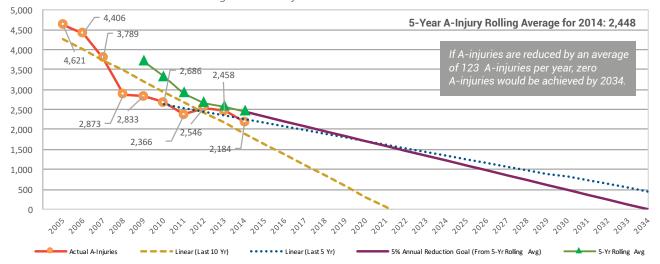
in Illinois and represent only 35% of the young-driver-involved fatalities and A-injuries. Illinois Department of Transportation (IDOT), Illinois State Police (ISP), and Ford Motor Company partnered to implement a state-wide Operation Teen Safe Driving program, a peer-led school program focused on reducing distracted driving, speed, and impaired driving among teens. The Please Return on Monday (PROM) education materials

Progress (continued)



focus on increasing awareness of teen safety driving during prom events, and there are several ongoing programs that focus on reducing underage drinking and driving. These programs are coordinated through strong partnerships with Students Against Destructive Decisions (SADD), Southern Illinois University School of Medicine ThinkFirst for Youth, Alliance Against Intoxicated Motorists (AAIM), Illinois American Red Cross and the Illinois Secretary of State. Illinois continues to implement the successful Click-It-or-Ticket (CIOT) campaign, a high-visibility, massive education and enforcement effort designed to increase seat belt usage. The CIOT campaign includes tailored safety messages for high-risk male drivers between the ages of 16 and 20 years old.

FIGURE YD-03 Young Driver A-Injuries 2005-2014



Issues and Contributing Factors to be Addressed

TABLE YD-01

YOUNG DRIVER: Number of Fatalities in Young Driver Crashes on State and Local Urban/Rural Roadways from 2010 to 2014

Fatalities	State Roadways			L			
ratalities	Urban	Rural	Total	Urban	Rural	Total	Total
2010	43	27	70	37	38	75	145
	(30%)	(19%)	(48%)	(26%)	(26%)	(52%)	(100%)
2011	19	31	50	48	41	89	139
	(14%)	(22%)	(36%)	(35%)	(29%)	(64%)	(100%)
2012	28	28	56	31	40	71	127
	(22%)	(22%)	(44%)	(24%)	(31%)	(56%)	(100%)
2013	22	50	72	36	40	76	148
	(15%)	(34%)	(49%)	(24%)	(27%)	(51%)	(100%)
2014	19	50	69	35	31	66	135
	(14%)	(37%)	(51%)	(26%)	(23%)	(49%)	(100%)
Total	131	186	317	187	190	377	694
	(19%)	(27%)	(46%)	(27%)	(27%)	(54%)	(100%)

TABLE YD-02

YOUNG DRIVER: Number of A-Injuries by State/Local and Urban/Rural Roadways from 2010 to 2014

A-Injuries	State Roadways			Local Roadways			
A-injuries	Urban	Rural	Total	Urban	Rural	Total	Total
2010	1,041	373	1,414	741	531	1,272	2,686
	(39%)	(14%)	(53%)	(28%)	(20%)	(47%)	(100%)
2011	719	300	1,019	854	493	1,347	2,366
	(30%)	(13%)	(43%)	(36%)	(21%)	(57%)	(100%)
2012	648	423	1,071	938	537	1,475	2,546
	(25%)	(17%)	(42%)	(37%)	(21%)	(58%)	(100%)
2013	503	524	1,027	939	492	1,431	2,458
	(20%)	(21%)	(42%)	(38%)	(20%)	(58%)	(100%)
2014	397	546	943	803	438	1,241	2,184
	(18%)	(25%)	(43%)	(37%)	(20%)	(57%)	(100%)
Total	3,308	2,166	5,474	4,275	2,491	6,766	12,240
	(27%)	(18%)	(45%)	(35%)	(20%)	(55%)	(100%)

As shown in **Table YD-01** and **Table YD-02,** approximately 54% of the young-driverinvolved fatalities and A-injuries occurring between 2010 and 2014 occurred on local roadways versus state roadways. Although more young-driver-involved fatalities occurred in rural areas (54%) versus urban areas, almost two-thirds of young-driver-involved A-injuries occurred in urban areas. On state roadways, urban A-injuries have decreased 62% while urban A-injuries on local roadways have increased 8%.

The following list provides
additional insights into
young-driver fatalities and serious
injuries. Numbers and percentages
reflect fatalities and serious
injuries in young-driver crashes
from 2010 to 2014.



- **28%** of young-driver-involved fatalities and serious injuries were **younger than 18 years old** (those driving on a GDL).
- **46%** of young-driver-involved fatalities and serious injuries occurred at **intersections** (**42%** of these were at signalized intersections).
- **34%** of young-driver-involved fatalities and serious injuries were **roadway departure**.
- **31%** of young-driver-involved fatalities and serious injuries occur **between noon and 5 p.m. on a weekday** (Monday Friday).
- **37%** of young-driver-involved fatalities and serious injuries were the young drivers themselves, and among these:

- 52% were male
- 12% were unrestrained
- 67% were driving by themselves

Young-driver-involved fatalities and serious injuries are more likely to involve **speeding (26%)** than the statewide average.

- **61%** of the young-driver-involved fatalities and serious injuries occurred in **urban areas**.
- In urban areas on **state** roadways, the majority of young-driver-involved fatalities and serious injuries (87%) occurred on **arterials**. A majority of these were **intersection-related (66%)**. In addition, **62**% of the intersection-related fatalities and serious injuries occurred at **signalized** intersections.

■ In urban areas on local roadways, 78% of the young-driver-involved fatalities and serious injuries occurred on arterials. A majority of these (61%) were intersection related. For local roadways, 49% of the intersection-related fatalities and serious injuries occurred at signalized intersections.

In rural areas on local roadways, **51%** of the young-driver-involved fatalities and serious injuries occurred on arterials. Among those, **59%** resulted in roadway departure crashes, of which **22%** were unrestrained occupants.

In rural areas on local roadways, 47% of the young-driver-involved fatalities and serious injuries occurred on roads that are functionally classified as "local roads or streets." Among these, 73% resulted in roadway departure crashes of which 66% were fixed-object, 41% involved speeding/aggressive driver, and 26% were unrestrained occupants.

Objectives and Strategies

Illinois continues to strive to enhance young-driver safety.

Table YD-O3 identifies some key objectives and potential strategies to address the contributing factors associated with fatalities and serious injuries in young driver crashes.

This data-driven, collaborative approach will help Illinois achieve young-driver fatality and serious injury goals and ultimately drive Zero Fatalities to a reality.

TABLE YD-O3 Objectives and Strategies to Address Young Driver Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Improve	1.1 Review and evaluate opportunities to improve GDL statute.	Enforcement
graduated driver licensing (GDL)	1.2 Extend the learner's phase from a minimum of 9 to 12 months.	Enforcement
program	1.3 Enhance existing GDL to require 70 hours of supervised driving (minimum of 20 at night) during the learner's stage.	Enforcement
	1.4 Enhance existing GDL to set the minimum age to 17 for an intermediate stage license.	Enforcement
	1.5 Enhance existing GDL to prohibit teen passengers during the intermediate stage.	Enforcement
	1.6 Encourage more diverse supervised driving practice environments (freeways, local roads, work zones) as well as varied weather and light conditions.	Education
	1.7 Extend GDL Intermediate License to all novice drivers up to age 21.	Enforcement
	1.8 Enhance the required 18-20 year old Adult Driver Education Program to include components of Illinois GDL program.	Education
2. Publicize, enforce, and adjudicate laws	2.1 Publicize and enforce GDL restrictions.	Education/ Enforcement
pertaining to young drivers	2.2 Publicize and enforce laws pertaining to underage drinking and driving.	Education/ Enforcement
	2.3 Publicize and enforce safety belt laws.	Education/ Enforcement
3. Assist parents in managing their	3.1 Require a parent/guardian component of driver education programs for parent/guardian and teen to attend prior to applying for learner's permit.	Education
teen's driving	3.2 Encourage selection of safer vehicles for young drivers.	Education
	3.3 Encourage parents to take student drivers to a variety of locations to ensure comprehensive driver experience and practice.	Education
4. Improve young- driver training	4.1 Review content and delivery to improve driver education/ training including recovery skills training.	Education
	4.2 Strengthen driver license testing, including written and road tests.	Education
	4.3 Work with insurance agencies to implement and enhance training (online courses).	Education
5. Employ school- based strategies	5.1 Incorporate and encourage peer-to-peer opportunities.	Education
baseu strategies	5.2 Review and expand multimodal plans to expand walking, cycling, and transit for new/expanded high school sites that consider the safety of the teen driver.	Engineering/ Education

Objectives (What)	Strategies (How)	Implementation Area(s)
6. Keep vehicles from leaving their lane and/or roadway*	6.1 Install centerline and shoulder rumble strips.	Engineering
	6.2 Apply shoulder treatments, eliminating shoulder drop-offs and widen/pave shoulders.	Engineering
7. Enhance intersection safety performance**	7.1 Improve signal timing of clearance intervals and include an all-red phase.	Engineering
	7.2 Implement flashing yellow arrow for left turns or implement protected left turn phasing at appropriate locations.	Engineering
	7.3 Investigate opportunities to install single lane roundabouts at appropriate locations.	Engineering
	7.4 Investigate intersection configurations that simplify decisions and reduce conflict points at appropriate locations.	Engineering
8. Investigate innovative technologies to enhance teen driving safety	8.1 Investigate technology devices and insurance programs that monitor and provide feedback (such as Ford Motor Company MyKey Program, IntelliDrive, Teen Safe Driver Program, etc.).	Engineering/ Education

*See Roadway Departure Emphasis Area for additional strategies
**See Intersection Related Emphasis Area for additional strategies





Motorcycle

BACKGROUND

To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area.

A motorcycle-related crash is defined as a crash where at least one of the vehicles involved in the crash was a motorcycle (over 150cc) or a motor driven cycle. Motorcycle crashes are unique because these types of vehicles have distinct characteristics that pose potential threats. Motorcycles are not protective vehicles, leaving motorcyclists exposed to potential impacts. As a result collisions between motorcyclists and other vehicles often result in fatalities and serious injuries.



Illinois has successfully implemented alcohol campaigns, student training, public information videos, a "one-stop shopping" site for motorcycling enthusiasts, and educational/ promotional events for broadening the knowledge and understanding of motorcycle safety.

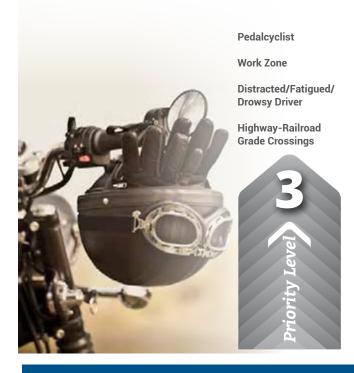
Many motorcycle crashes with fatalities and serious injuries have occurred on urban roadways, with many occurring in peak season (from May to September in Illinois). Most fatal- and serious-injury motorcycle

crashes involve male motorcyclists, which is a subset of the population that should be targeted for aggressive educational and awareness campaigns. In addition, a majority of fatal- and serious-injury motorcycle crashes involved a motorcyclist without a helmet. A law for obligatory helmet use could reduce the severity of these crashes.

Motorcycle fatalities represent 15% of overall fatalities in Illinois and therefore is a *Priority Level Two*.

FIGURE MC-01

Motorcycle Priority Level



Speeding/Aggressive Driver

Older Driver

Younger Driver

MOTORCYCLE

Heavy Vehicle

Pedestrian



Roadway Departure

Impaired Driver

Unrestrained Occupants

Intersection Related



ILSHSP MOTORCYCLE SAFETY TARGETS

Fatalities:

Reducing 5-year rolling average from 139 in 2014 to less than 98 by 2020

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 1,054 in 2014 to less than 738 by 2020

Illinois has

a goal to

eliminate ALL traffic-related

> motorcycle **fatalities**

Progress

Illinois has implemented several strategies to address fatalities and injuries in motorcycle crashes. From 2005 to 2014, motorcycle fatalities decreased 26%, and motorcycle A-injuries decreased 10%. Educational motorcycle and alcohol enforcement activities were included during alcohol and safety belt campaigns. Educational outreach events and student training increased, and Public Information & Education (PI&E) was allocated funds to continue various educational

initiatives. A website was developed to inform motorcyclists and the general public about motorcycle classes, program history, laws and regulations, safety tips, resources, and crash data. Free motorcycle courses are provided with promotional tags, posters, bumper stickers and brochures to inform the public. A conference was held to discuss motorcycle issues and education for Illinois instructors.

Progress



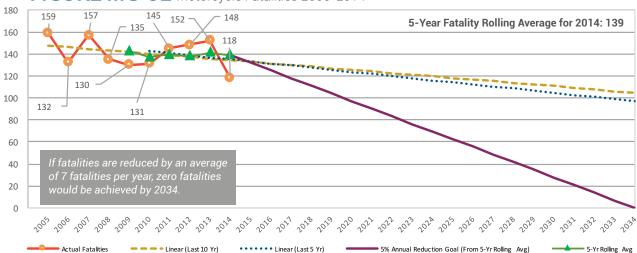
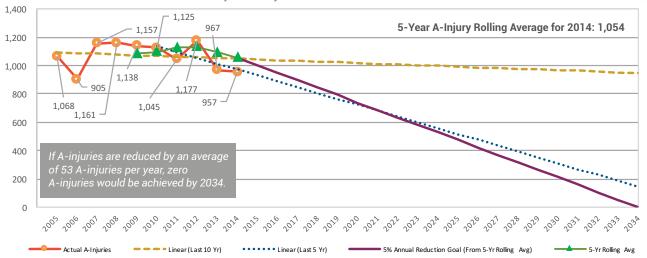


FIGURE MC-03 Motorcycle A-Injuries 2005-2014





Issues and Contributing Factors to be Addressed

TABLE MC-01

Number of Motorcyclist Fatalities on State and Local Urban/Rural Roadways from 2010 to 2014

Fatalities	State Roadways			Local Roadways			
ratailles	Urban	Rural	Total	Urban	Rural	Total	Total
2010	45	27	72	29	30	59	131
	(34%)	(21%)	(55%)	(22%)	(23%)	(45%)	(100%)
2011	44	30	74	40	31	71	145
	(30%)	(21%)	(51%)	(28%)	(21%)	(49%)	(100%)
2012	35	17	52	50	46	96	148
	(24%)	(11%)	(35%)	(34%)	(31%)	(65%)	(100%)
2013	31	46	77	45	30	75	152
	(20%)	(30%)	(51%)	(30%)	(20%)	(49%)	(100%)
2014	20	36	56	41	21	62	118
	(17%)	(31%)	(47%)	(35%)	(18%)	(53%)	(100%)
Total	175	156	331	205	158	363	694
	(25%)	(22%)	(48%)	(30%)	(23%)	(52%)	(100%)

TABLE MC-02

Number of Motorcyclist A-Injuries on State and Local Urban/Rural Roadways from 2010 to 2014

A Injurios	State Roadways			Local Roadways			
A-Injuries	Urban	Rural	Total	Urban	Rural	Total	Total
2010	398	178	576	318	231	549	1,125
	(35%)	(16%)	(51%)	(28%)	(21%)	(49%)	(100%)
2011	297	159	456	361	228	589	1,045
	(28%)	(15%)	(44%)	(35%)	(22%)	(56%)	(100%)
2012	269	211	480	405	292	697	1,177
	(23%)	(18%)	(41%)	(34%)	(25%)	(59%)	(100%)
2013	186	230	416	342	209	551	967
	(19%)	(24%)	(43%)	(35%)	(22%)	(57%)	(100%)
2014	151	258	409	339	209	548	957
	(16%)	(27%)	(43%)	(35%)	(22%)	(57%)	(100%)
Total	1,301	1,036	2,337	1,765	1,169	2,934	5,271
	(25%)	(20%)	(44%)	(33%)	(22%)	(56%)	(100%)

As shown in **Table MC-01**and **Table MC-02** approximately 52% of fatalities and 56% of A-injuries for motorcycle crashes between 2010 and 2014 occurred on the local roadway system.

On the state roadway system, 25% of fatalities and A-injuries were in urban areas. For the local systems, 30% of fatalities and 33% of A-injuries were in urban areas.





The following list includes some additional high-priority trends and issues for motorcycle crashes. Numbers and percentages reflect motorcycle-involved fatalities and serious injuries from 2010 to 2014.

Of the motorcyclist fatalities and serious injuries, **29% wore helmets**, while **60% did not wear helmets**, and the other 11% were unknown.

60% of motorcyclist fatalities and serious injuries resulted from **at-fault motorcycle drivers**; **61%** of the at-fault motorcycle drivers were **not wearing helmets**, and **28%** of them also were **impaired**.

40% of motorcyclist crashes were **roadway departure**; 22% involved **speeding and/or aggressive drivers**; and **19%** involved **impaired drivers**.

82% of all the motorcycle fatalities and serious injuries were **male motorcycle drivers** and **67%** of them were **at-fault.**

11% of the fatalities and serious injuries were from motorcyclists 21 to 25 years old.

58% of motorcyclist fatalities and serious injuries occurred in **urban areas**.

The peak season for motorcycle crashes was from **May to September**, resulting in **75%** of fatalities and serious injuries in Illinois between 2010 and 2014. **July** contributed the highest percentage of fatalities and serious injuries with **17%**.

44% of motorcyclist fatalities and serious injuries occur during Saturday and Sunday.

31% of motorcyclist fatalities and serious injuries occur between 6 p.m. and 11 p.m.

Objectives and Strategies

Illinois continues to strive to enhance motorcycle safety.

Table MC-O3 identifies some key objectives and potential strategies to address the contributing factors associated with motorcycle-related fatalities and serious injuries.

This data-driven, collaborative approach will help Illinois achieve motorcycle fatality and serious injury safety goals and ultimately drive Zero Fatalities to a reality.

TABLE MC-O3 Objectives and Strategies to Address Motorcycle Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Improve public awareness, education, and training for motorcyclists,	1.1 Increase training opportunities for beginning, intermediate and advanced motorcycle riders in Illinois through education campaigns.	Education
	1.2 Continue to implement motorcycle awareness public information and education campaigns.	Education
motorists, and all safety stakeholders	1.3 Enhance rider training programs to improve motorcycle safety.	Education
to promote safer driving behaviors	1.4 Increase awareness of the benefits of wearing a helmet and proper gear through educational campaigns.	Education
2. Research, identify and implement	2.1 Conduct a paid media campaign for the motorcycle riding season.	Education
effective policies and programs to improve motorcycle safety at	2.2 Improve motorcycle crash, registration and licensing data collection, integration, analysis and sharing between agencies at all levels.	Enforcement/ Engineering
state and local levels	2.3 Pursue legislation for mandatory motorcycle helmet law.	Enforcement
	2.4 Develop and execute enforcement programs to improve equipment maintenance and reduce improper equipment usage.	Enforcement
	2.5 Seek increased or additional funding to support motorcycle-related safety projects and programs.	Enforcement/ Education/ Engineering
3. Improve infrastructure features to help reduce the number and severity of motorcycle crashes	3.1 Improve lighting at intersections to increase visibility of motorcyclists.	Engineering
	3.2 Improve surface irregularities, unpaved shoulders, and unforgiving roadside conditions including barriers.	Engineering
	3.3 Enhance horizontal curves safety treatments to improve motorcycle safety.	Engineering



BACKGROUND

To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area. While there are fewer heavy-vehicle fatalities and serious injuries relative to other ILSHSP emphasis areas, crashes involving heavy vehicles may have a significant impact on the traveling public.

Heavy-vehicle crashes are categorized as crashes where at least one of the vehicles involved is a bus with capacity for up to 15 passengers, a bus with capacity over 15 passengers, a single-unit truck, a tractor with semitrailer, or a tractor without a semitrailer.

The State of Illinois has a high rate of commercial trucks and vehicles that travel along interstate and rural roads. Many heavy-vehicle crashes involve tractors with semitrailers. Strict laws and regulations such as weight limitation, speed limits, and driver awareness campaigns are enforced to keep truck drivers and other road users safe. IDOT has expanded its "Be Safe" billboard campaign to heighten awareness of heavy-vehicle laws in Illinois.

Heavy-vehicle-involved fatalities represent 14% of overall fatalities in Illinois and therefore is a *Priority Level Two*.

Illinois has a goal to **eliminate ALL** heavy-vehicle-involved **fatalities**.

FIGURE HV-01

Heavy Vehicle Priority Level

Pedalcyclist

Work Zone

Drowsy Driver

Distracted/Fatiqued/

Speeding/Aggressive Driver

Older Driver

Younger Driver

Motorcycle

HEAVY VEHICLE

Pedestrian





Roadway Departure

Impaired Driver

Unrestrained Occupants

Intersection Related



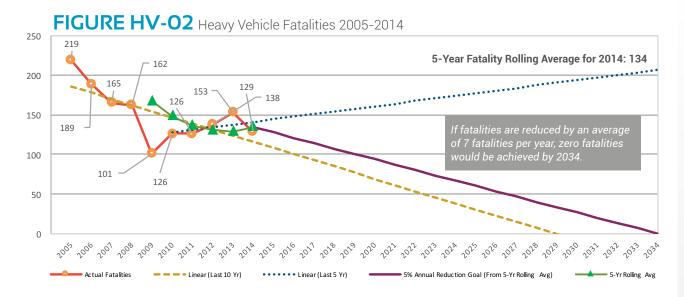
ILSHSP HEAVY VEHICLE DRIVER SAFETY TARGETS

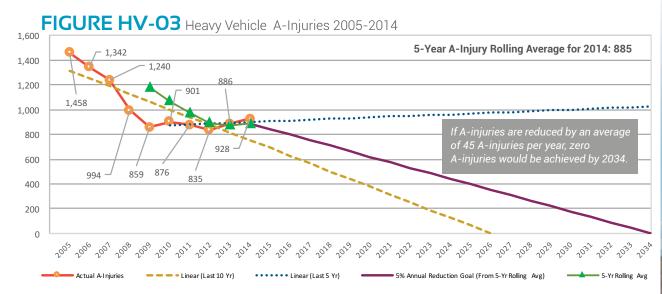
Fatalities:

Reducing 5-year rolling average from 134 in 2014 to less than 95 by 2020

Serious Injuries (A-Injuries): Reducing 5-year rolling average from 885 in 2014 to less than 620 by 2020

Progress





Illinois has implemented several strategies to address fatalities and injuries in heavyvehicle- involved crashes. IDOT has increased the number of motor carrier and hazardous materials compliance staff significantly, and several can perform compliance reviews and safety audits. IDOT inspects over 75,000 trucks and conducts over 2,000 safety audits on trucks annually. Local law enforcement officers received in-service training to learn heavy vehicle requirements and licensing. An electronic data transfer was adopted to allow staff to electronically receive large truckrelated crash data in a more timely, accurate, and complete way. IDOT and ISP educated the industry on safety and hazardous material compliance, and the public was educated through billboard campaigns and public reports.



Issues and Contributing Factors to be Addressed

TABLE HV-01

Number of Fatalities for Heavy Vehicle Crashes on State and Local Urban/Rural Roadways from 2010 to 2014

Estalities	State Roadways			L	Local Roadways			
Fatalities	Urban	Rural	Total	Urban	Rural	Total	Total	
2010	55	53	108	8	10	18	126	
	(44%)	(42%)	(86%)	(6%)	(8%)	(14%)	(100%)	
2011	31	56	87	19	20	39	126	
	(25%)	(44%)	(69%)	(15%)	(16%)	(31%)	(100%)	
2012	47	56	103	23	12	35	138	
	(34%)	(41%)	(75%)	(17%)	(9%)	(25%)	(100%)	
2013	24	80	104	29	20	49	153	
	(16%)	(52%)	(68%)	(19%)	(13%)	(32%)	(100%)	
2014	27	70	97	17	15	32	129	
	(21%)	(54%)	(75%)	(13%)	(12%)	(25%)	(100%)	
Total	184	315	499	96	77	173	672	
	(27%)	(47%)	(74%)	(14%)	(11%)	(26%)	(100%)	

TABLE HV-02

Number of A-Injuries for Heavy Vehicle Crashes on State and Local Urban/Rural Roadways from 2010 to 2014

A-Injuries	State Roadways			Local Roadways			
A-Injuries	Urban	Rural	Total	Urban	Rural	Total	Total
2010	452	252	704	158	39	197	901
	(50%)	(28%)	(78%)	(18%)	(4%)	(22%)	(100%)
2011	364	203	567	247	62	309	876
	(42%)	(23%)	(65%)	(28%)	(7%)	(35%)	(100%)
2012	258	281	539	214	82	296	835
	(31%)	(34%)	(65%)	(26%)	(10%)	(35%)	(100%)
2013	198	356	554	273	59	332	886
	(22%)	(40%)	(63%)	(31%)	(7%)	(37%)	(100%)
2014	183	351	534	324	70	394	928
	(20%)	(38%)	(58%)	(35%)	(8%)	(42%)	(100%)
Total	1,455	1,443	2,898	1,216	312	1,528	4,426
	(33%)	(33%)	(65%)	(27%)	(7%)	(35%)	(100%)

As shown in Table HV-01
and Table HV-02,
approximately 74%
of fatalities and 65%
of A-injuries for
heavy-vehicle crashes
between 2010 and 2014
occurred on the state
roadway system. 58% of all
heavy-vehicle-involved
fatalities and serious
injuries occurred
in urban areas.

The follow contributing factors
were identified for severe
crashes involving heavy vehicles
based on data from 2010 to 2014.
Numbers and percentages
reflect fatalities and serious
injuries in heavy-vehicle-involved
crashes from 2010 to 2014.





Of the total heavy-vehicle-involved fatalities and serious injuries, approximately **60%** involved a **tractor**, including tractors **with and without a semi-trailer**, and **16%** involved a **bus**.

Among all the fatalities and serious injuries involving heavy vehicles, **31%** occurred on **interstates and freeway systems**. Of these fatalities and serious injuries:

A majority (83%) of these fatalities and serious injuries involved tractors with semi-trailers and 14% involved single-unit trucks. ■ 25% of them were roadway departure crashes, 33% of those occurred on curves.

36% of heavy-vehicle-involved fatalities and serious injuries were **intersection related**.

- 89% of these occurred along arterials and 5% occurred along local roadways.
- 20% involved buses with capacities up to and over 15 passengers, with 23% being rear-end crashes along arterials.

9% of fatalities and serious injuries occurred on curves.

Objectives and Strategies

Illinois continues to strive to enhance heavy-vehicle safety.

Table HV-O3 identifies some key objectives and potential strategies to address the contributing factors associated with heavy-vehicle-related fatalities and serious injuries.

This data-driven, collaborative approach will help Illinois achieve heavy vehicle safety goals and ultimately drive Zero Fatalities to a reality.

TABLE HV-O3 Objectives and Strategies to Heavy Vehicle Severe Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Identify potential roadway	1.1 Identify and consider treating crash roadway segments by improving signage, geometry, and pavement markings.	Engineering
infrastructure and operational	1.2 Install interactive truck rollover signage.	Engineering
improvements	1.3 Evaluate speed limits and improve enforcement to maintain the posted speed limits.	Enforcement/ Engineering
	1.4 Evaluate the number and location of the weigh stations to account for improved technology.	Enforcement/ Engineering
	1.5 Incorporate centerline and shoulder rumble strips into new and existing roadways where appropriate.	Engineering
2. Improve driver behavior and vehicle maintenance	2.1 Increase efficiency of use of existing parking spaces and create additional parking spaces to reduce fatigue and distracted driving.	Engineering
maintenance	2.2 Evaluate the need to improve heavy-vehicle maintenance.	Enforcement
	2.3 Explore methods to better identify driver restraint compliance.	Enforcement
	2.4 Work with local training boards to train law enforcement officers to recognize heavy-vehicle requirements and licensing, and report incidents accurately.	Enforcement
	2.5 Identify carriers with reoccurring unsafe practices and develop methods for improvement.	Education/ Enforcement
	2.6 Promote and integrate the usage of technology to improve driver behavior.	Engineering
3. Improve driver awareness for all road users	3.1 Increase driver knowledge by incorporating and promulgating "Share the Road" information through electronic media and driver educational materials.	Education
4. Promote industry safety initiatives	4.1 Improve the timeliness and accuracy of truck safety data.	Engineering/ Enforcement
	4.2 Perform safety consultations with carrier safety management.	Education
	4.3 Promote development and deployment of truck safety technologies.	Engineering
	4.4 Investigate the use of ITS or "detectors" and changeable/dynamic message boards to communicate congested areas.	Engineering
	4.5 Explore opportunities to strengthen the commercial driver's license (CDL) program, including medical considerations.	Enforcement



Pedestrian

BACKGROUND

To ultimately achieve Zero
Fatalities on all Illinois roadways,
Illinois has set ILSHSP statewide
targets for each emphasis area.

A pedestrian-related crash is defined as a crash where at least one person who was a pedestrian is involved. Pedestrian crashes are unique because these types of collisions have distinct characteristics that pose potential threats.

Pedestrians are not protected when crossing the roadway and may be exposed to high speed traffic. Collisions between vehicles and pedestrians often result in fatal and serious injuries.



The majority of pedestrian fatal and A-injury crashes occur in urban areas, and most of these crashes are on local roadways. Many fatal and A-injury pedestrian crashes occur in the roadway, often at intersections and/or crosswalks.

Pedestrian fatalities represent 14% of overall fatalities in Illinois and therefore is a *Priority Level Two*.



FIGURE PD-01

Pedestrian Priority Level

Pedalcyclist

Work Zone

Distracted/Fatigued/ Drowsy Driver

Highway-Railroad Grade Crossings

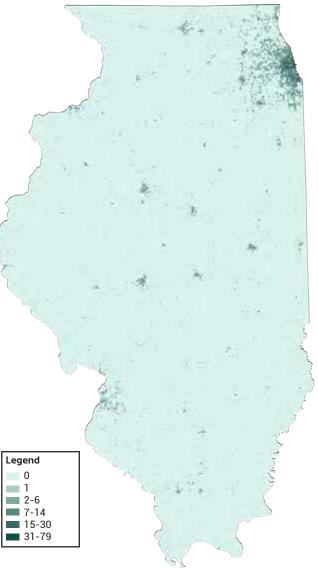




Illinois has a goal to eliminate ALL traffic-related pedestrian fatalities.

Fatal and serious injury pedestrian crashes

by 1 mile squares from 2010 to 2014



ILSHSP PEDESTRIAN SAFETY TARGETS

Fatalities:

Reducing 5-year rolling average from 128 in 2014 to less than 90 by 2020

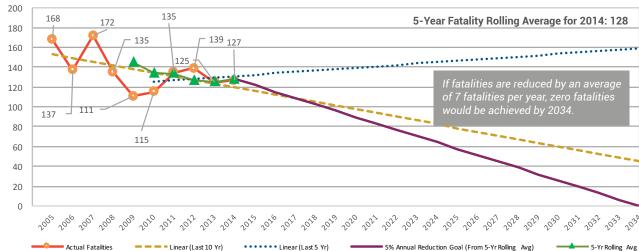
Serious Injuries (A-Injuries):

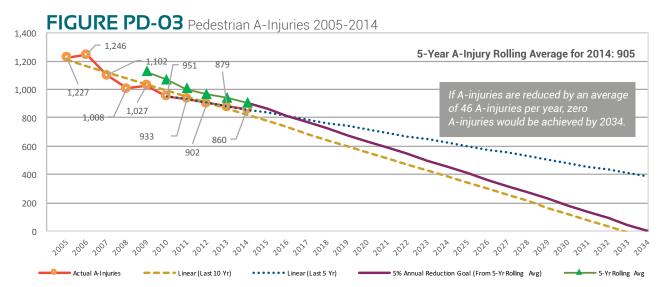
Reducing 5-year rolling average from 905 in 2014 to less than 634 by 2020

Progress

Illinois is committed to the FHWA Safe Transportation for Every Pedestrian (STEP) Program and is implementing a number of multidisciplinary strategies to address pedestrian fatalities and injuries. The Chicago Department of Transportation has implemented the Safe Routes to School Program on the west side of Chicago and has identified five intersections that will have pedestrian refuge islands installed to make crossings safe and comfortable for pedestrians. FHWA is promoting pedestrian refuge islands through the Every Day Counts (EDC) Program. This countermeasure will provide a safe area at the midpoint of the roadway to allow pedestrians to safely stop midway before crossing the remaining distance. In June 2016, Champaign County developed a Bike Pedestrian Plan for Savoy area and provided recommendations for pedestrian signage and markings, countdown timers, speed reduction policy, and striped crosswalks that connect to sidewalks. In September 2016, the East-West Gateway Council of Governments conducted a Greater Street initiative for East St. Louis area where they started installing wider sidewalks, pedestrian lighting, and updating signage and pavement markings for pedestrians and bikes.







Issues and Contributing Factors to be Addressed

TABLE PD-01

Number of Pedestrian Fatalities by State and Local Urban/Rural Roadways from 2010 to 2014

TABLE PD-02

Number of Pedestrian A-Injuries by State and Local Urban/Rural Roadways from 2010 to 2014

Fatalities	State Roadways			L			
ratailties	Urban	Rural	Total	Urban	Rural	Total	Total
2010	71	6	77	32	6	38	115
	(62%)	(5%)	(67%)	(28%)	(5%)	(33%)	(100%)
2011	43	10	53	74	8	82	135
	(32%)	(7%)	(39%)	(55%)	(6%)	(61%)	(100%)
2012	48	11	59	73	7	80	139
	(35%)	(8%)	(42%)	(53%)	(5%)	(58%)	(100%)
2013	18	28	46	67	12	79	125
	(14%)	(22%)	(37%)	(54%)	(10%)	(63%)	(100%)
2014	20	33	53	66	8	74	127
	(16%)	(26%)	(42%)	(52%)	(6%)	(58%)	(100%)
Total	200	88	288	312	41	353	641
	(31%)	(14%)	(45%)	(49%)	(6%)	(55%)	(100%)

A-Injuries	State Roadways			Local Roadways			
A-injuries	Urban	Rural	Total	Urban	Rural	Total	Total
2010	398	17	415	507	29	536	951
	(42%)	(2%)	(44%)	(53%)	(3%)	(56%)	(100%)
2011	188	17	205	688	40	728	933
	(20%)	(2%)	(22%)	(74%)	(4%)	(78%)	(100%)
2012	166	43	209	654	39	693	902
	(18%)	(5%)	(23%)	(73%)	(4%)	(77%)	(100%)
2013	157	56	213	637	29	666	879
	(18%)	(6%)	(24%)	(72%)	(3%)	(76%)	(100%)
2014	134	66	200	627	33	660	860
	(16%)	(8%)	(23%)	(73%)	(4%)	(77%)	(100%)
Total	1,043	199	1,242	3,113	170	3,283	4,525
	(23%)	(4%)	(27%)	(69%)	(4%)	(73%)	(100%)

As shown in Table PD-01 and Table PD-02, approximately 55% of pedestrian fatalities, and 73% of pedestrian A-injuries that occurred between 2010 and 2014 occurred on local roadways versus the state roadways versus the state roadways.

90% of all pedestrian fatalities and serious injuries occurred in urban areas.

The following list includes some additional high-priority trends and issues for pedestrian crashes. Numbers and percentages reflect fatalities and serious injuries in pedestrian crashes from 2010 to 2014.



90% of the pedestrian fatalities and serious injuries occurred in **urban areas**.

- Among these fatalities and serious injuries in urban areas, 27% occurred on state roadways and 73% occurred on local roadways.
 - On state roadways in urban areas, the pedestrian fatalities and serious injuries decreased by 67%, which is approximately a 17% annual reduction.
 - In urban areas, **93**% of the pedestrian fatalities and serious injuries on state roadways occurred on **arterials**.
 - 51% were intersection related; of these,
 67% were signalized intersections.
 - 78% occurred while pedestrians were in the roadway (49% very likely midblock) and crosswalks (29%).

- On local roadways in urban areas, the pedestrian -related fatalities and serious injuries increased by 29%, which is about a 7% increase per year.
- In urban areas, 72% of pedestrian fatalities and serious injuries on local roadways occurred on arterials
 - 51% were intersection related; of these,
 57% were signalized intersections.
 - 82% occurred while pedestrians were in roadway (47%, very likely midblock) and crosswalks (35%).
 - Failing to yield the right-of-way accounted for 35% of total reported contributing factors for pedestrian-related fatalities and serious injuries in the urban areas for local roadways on arterial roadways.

79% of the pedestrian fatalities and serious injuries occurred in the roadway and crosswalks in urban areas.

On state roadways in rural areas, the pedestrianrelated fatalities and serious injuries increased by over three times over the five years.

There is a significant concentration of reported pedestrian fatalities and serious injuries in the **Chicagoland** area (Cook, DuPage, and Will counties). This area reported **69%** of total pedestrian fatalities and serious injuries.

Approximately **53%** of state population is in Chicagoland area according to the United States Census Bureau Population estimates Program.

Objectives and Strategies

Illinois continues to strive to
enhance pedestrian safety.

Table PD-03 identifies some key
objectives and potential strategies
to address the contributing factors
associated with pedestrian
fatalities and serious injuries.

This data-driven, collaborative approach will help Illinois achieve pedestrian fatality and A-injury goals and ultimately drive Zero Fatalities to a reality.

TABLE PD-O3 Objectives and Strategies to Address Pedestrian Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Reduce vehicle	1.1 Implement more lane narrowing and road diet measures.	Engineering
speed	1.2 Install traffic calming measures along road sections and at intersections.	Engineering
	1.3 Increase enforcement for speeding and aggressive driving.	Enforcement
	1.4 Consider opportunities to reduce speeds through automated enforcement.	Enforcement
2. Reduce pedestrian	2.1 Provide sidewalks/walkways with curb ramps.	Engineering
exposure to vehicular traffic	2.2 Install or upgrade traffic and pedestrian signals such as pedestrian countdown timers, pedestrian scramble and pedestrian detectors.	Engineering
	2.3 Construct pedestrian corner and median refuge islands.	Engineering
	2.4 Evaluate and consider opportunities for access management or diverting vehicular traffic to nearby routes to avoid high pedestrian travel areas.	Engineering
	2.5 Provide grade separated facilities where appropriate.	Engineering
	2.6 Provide school route improvements.	Engineering
3. Improve visibility between motor	3.1 Enhance crosswalks and sight lines to improve visibility of pedestrians (e.g. bump-outs).	Engineering
vehicles and pedestrians	3.2 Implement lighting/crosswalk illumination measures.	Engineering
	3.3 Provide signs, signals and/or flashing beacons to alert motorists that pedestrians are crossing.	Engineering
4. Improve pedestrian and	4.1 Promote awareness and increase enforcement of existing laws regarding pedestrians' right-of-way.	Education
motorist safety awareness and behavior	4.2 Increase equitable enforcement of existing laws that promote pedestrian safety for pedestrians and other roadway users.	Education/ Enforcement
	4.3 Provide education, outreach, and training for all roadway users of the dangers of exiting their vehicle (disabled vehicle, crash, etc).	Enforcement
	4.4 Implement pedestrian programs and include outreach to schools, churches, and senior centers.	Education
	4.5 Participate in the national discussion on pedestrian safety.	Education
	4.6 Encourage increases in state and local contributions for pedestrian facilities.	Engineering
	4.7 Continue to improve drivers education by incorporating components into licensure, including for CDLs.	Education
5. Provide guidance to planners and designers to address pedestrian safety issues	5.1 Provide guidance and criteria to assist state and local agencies in identifying effective countermeasures for application under specific roadway, traffic volume, and traffic speed conditions.	Engineering







Pedalcyclist



To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area. A pedalcyclist-related crash is defined as a crash where at least one person who is a pedalcyclist is involved. Pedalcyclists are not protected when crossing the roadway and may have limited protection when riding along the roadway resulting in exposure to high speed traffic. Collisions between vehicles and pedalcyclists often result in fatal and serious injuries.

Pedalcyclist collisions have distinct characteristics that pose significant potential threats to cyclist safety. IDOT has successfully developed policies where pedalcyclists are considered in the planning, design, and implementation of roadways. For example, pedalcyclist usage and accommodations

are considered during the planning of shoulders and rumble strips.

In addition, Complete Streets legislation provides for full consideration of pedestrians and bicyclists in the planning and development of transportation facilities. In all urbanized areas, IDOT accommodates nonmotorized users along bicycle and pedestrian ways as a default condition.

FIGURE PC-01

Pedalcyclist Priority Level

PEDALCYCLIST

Work Zone

Distracted/Fatigued/ Drowsy Driver

Highway-Railroad Grade Crossings



Speeding/Aggressive Driver

Older Driver

Younger Driver

Motorcycle

Heavy Vehicle

Pedestrian



Roadway Departure

Impaired Driver

Unrestrained Occupants
Intersection Related



Fatalities:

Reducing 5-year rolling average from 27 in 2014 to less than 20 by 2020

ILSHSP PEDALCYCLIST

SAFETY TARGETS

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 409 in 2014 to less than 287 by 2020

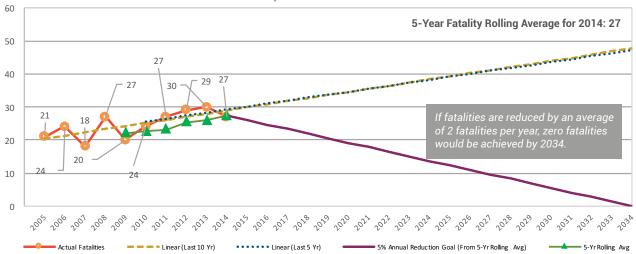
Illinois has a goal to **eliminate ALL** pedalcyclist **fatalities**.

A majority of pedalcyclist fatal and serious injury crashes involve males. Most of these crashes occur in urban areas, where rates of cycling tend to be much higher, and the majority occur on local (county, township, and municipal) roads. Although, when calculated per mile of roadway, fatal and serious injury pedalcyclist crashes are higher on state roads, and the majority occur on local roadways.

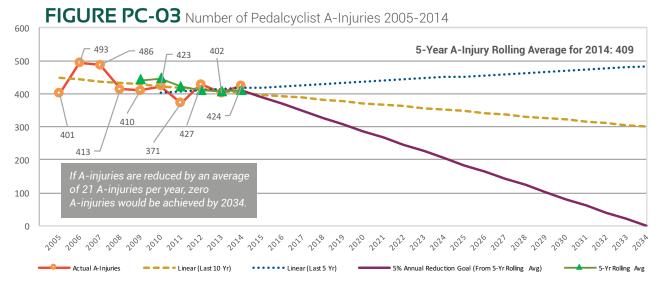


Progress

FIGURE PC-02 Number of Pedalcyclist Fatalities 2005-2014



Illinois has implemented a number of multidisciplinary strategies to address pedalcyclist fatalities and injuries. Many jurisdictions have added bicycle lanes to provide dedicated, clearly-defined space on roads for cyclists, and bicycle paths to provide more positive separation where traffic conditions dictate an unacceptable risk for bicyclists on the pavement. Marking designated bike routes and providing maps to local bike groups may increase ridership on the safest routes. CDOT has implemented protected and buffered bike lanes in locations throughout the city so cars and pedalcyclists are separated by solid and hatched pavement markings, parked motor vehicles, raised curbs, and other barrier elements.





Issues and Contributing Factors to be Addressed

TABLE PC-01

Number of Pedalcyclist Fatalities on State and Local Urban/Rural Roadways from 2010 to 2014

State Roadways Local Roadways Fatalities Urban Rural **Total** Urban Rural **Total Total** 3 13 2 11 10 24 2010 (42%)(100%)(13%)(54%)(38%)(8%) (46%)5 0 5 13 9 22 27 2011 (19%)(100%) (0%) (19%)(48%)(33%)(81%)11 12 6 18 29 2012 (24%)(14%)(38%)(41%)(21%)(62%)(100%)6 7 13 11 6 17 30 2013 (100%) (20%)(23%)(43%)(37%)(20%)(57%)5 2 7 17 3 20 27 2014 (19%)(7%) (26%)(63%)(11%)(74%)(100%)33 16 49 62 26 88 137 **Total** (24%)(12%)(36%)(45%)(19%)(64%)(100%)

TABLE PC-02

Number of Pedalcyclist A-Injuries on State and Local Urban/Rural Roadways from 2010 to 2014

A Injuries	State Roadways			L			
A-Injuries	Urban	Rural	Total	Urban	Rural	Total	Total
2010	132	1	133	261	29	290	423
	(31%)	(0%)	(31%)	(62%)	(7%)	(69%)	(100%)
2011	63	4	67	286	18	304	371
	(17%)	(1%)	(18%)	(77%)	(5%)	(82%)	(100%)
2012	69	12	81	326	20	346	427
	(16%)	(3%)	(19%)	(76%)	(5%)	(81%)	(100%)
2013	54	17	71	312	19	331	402
	(13%)	(4%)	(18%)	(78%)	(5%)	(82%)	(100%)
2014	66	23	89	310	25	335	424
	(16%)	(5%)	(21%)	(73%)	(6%)	(79%)	(100%)
Total	384	57	441	1,495	111	1,606	2,047
	(19%)	(3%)	(22%)	(73%)	(5%)	(78%)	(100%)

As shown in **Table PC-01**and **Table PC-02**, the
highest concentration
of pedalcyclist fatalities
and A-injuries between
2010 and 2014 occurred
on local roadways accounting
for 64% and 78%, respectively.
90% of all pedalcyclist
fatalities and A-injuries
occurred in urban areas.



The following list includes some additional high-priority trends and issues for pedalcyclist crashes. Numbers and percentages reflect fatalities and serious injuries in pedestrian crashes from 2010 to 2014.



Pedalcyclists **under 26 years of age** represent **45%** of total reported pedalcyclist fatalities and serious injuries. Of these, **74%** were male and **26%** were female.

90% of the pedalcyclist fatalities and serious injuries occurred in urban areas, where rates of cycling are much higher.

- Among these fatalities and serious injuries in urban areas, 21% occurred on state roadways and 79% occurred on local roadways.
 - On state roadways in urban areas, pedalcyclist fatalities and serious injuries decreased by 50%, which is approximately a 13% reduction per year.
 - On state roadways in urban areas, 99% of the pedalcyclist fatalities and serious injuries on state roadways occurred on arterials.
 - 67% were intersection related; of these, 65% were signalized intersections.
 - On local roadways in urban areas, the pedalcyclist fatalities and serious injuries increased by 21% which is about a 5% increase per year.

- On local roadways in urban areas, 71% of the pedalcyclist fatalities and serious injuries on state roadways occurred on arterials.
 - 63% were intersection related; of these, 45% were signalized intersections.
 - 39% were motorists failing to yield right-of-way.

The majority of pedalcyclist fatalities and serious injuries occurred on a Tuesday (16%), Wednesday (16%), and Friday (15%), which jointly accounts for 48% of total pedalcyclist fatalities and serious injuries. Noon to 5 p.m. on Friday represents 38%, and 6 p.m. to midnight on Wednesday represents 29% of that time frame.

43% of pedalcyclist fatalities and serious injuries occurred during **summer** (June to August).

Objectives and **Strategies**

Illinois continues to strive to
enhance pedalcyclist
safety. Table PC-O3 identifies
some key objectives and
potential strategies to address the
contributing factors associated
with pedalcyclist fatalities and
serious injuries.

This data-driven, collaborative approach will help Illinois achieve pedalcyclist fatality and serious injury goals and ultimately drive Zero Fatalities to a reality.

TABLE PC-O3 Objectives and Strategies to Address Pedalcyclist Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Partner with local, state, and federal agencies, and	1.1 Continue involvement with bicycle safety committees/councils/groups.	Enforcement / Education
organizations on pedalcyclist safety	1.2 More fully utilize existing funding and seek to support safety programs to improve bicycle safety.	Enforcement
	1.3 Promote and fund state and local agencies and organizations to create projects with proper bicycle-motor vehicle interaction and pedalcycle initiatives.	Education/ Engineering
2. Improve education of roadway users to improve interactions	2.1 Improve public awareness and enhance training to promote safer behavior by all roadway users relative to bicycle traffic.	Education
in traffic	2.2 Increase and enhance training programs and events for state and local planners, engineers, safety practitioners, and officials, which are focused on best practices in bicycle facility design.	Education
	2.3 Emphasize the presence and vulnerability of pedalcyclists to all roadway users.	Engineering/ Education
3. Research, identify, and implement	3.1 Pilot and conduct equitable enforcement programs for all roadway users relative to bicycle traffic.	Enforcement
effective policies to improve pedalcyclist safety at the	3.2 Increase driver and bicycle compliance with traffic laws.	Enforcement
state, local, and government levels	3.3 Promote research and identify effective policies to improve bicycle safety that can be implemented by state and local governments.	Education/ Enforcement
4. Improve infrastructure	4.1 Evaluate and implement innovative best practices to improve bicycle accommodations and safety.	Engineering
features to help reduce the number and severity of	4.2 Implement strategies and improvements that provide safer shared spaces along arterial and collector roadways, especially at intersections.	Engineering
pedalcyclist crashes using a context sensitive approach	4.3 Consider diverse options for bicycle travel including along through routes with lower traffic volumes, while seeking to fill network gaps.	Engineering
to design	4.4 Promote and conduct training for local agencies on innovative strategies and techniques for bicycle accommodation.	Engineering/ Education
	4.5 Use bicycle traffic signals and signal equipment that effectively detect and safely accommodates bicyclists.	Engineering

Bicycle: Every device propelled by human power upon which any person may ride, having two tandem wheels except scooters and similar devices. Source: ILLINOIS VEHICLE CODE





Work Zone



To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area. While there are fewer work zone fatalities relative to other ILSHSP emphasis areas, crashes within work zones may have a significant impact on the traveling public.

A work zone is an area of a roadway that may have construction, maintenance, or utility work activities occurring. The work zone is typically marked by signs, channelizing devices, barriers, pavement markings, and/or work vehicles. It extends from the first warning sign (for Illinois, it is the "ROAD CONSTRUCTION AHEAD" or "ROAD WORK AHEAD") or high-intensity rotating, flashing, oscillating, or strobe lights on a

vehicle to the "END ROAD WORK" sign or the last temporary traffic control device. A work zone crash is a traffic-related crash that occurs within these limits, regardless of any work zone activities.



FIGURE WZ-01 Work Zone Priority Level

Pedalcyclist

WORK ZONE

Distracted/Fatigued/ Drowsy Driver

Highway-Railroad Grade Crossings



Speeding/Aggressive Driver

Older Driver

Younger Driver

Motorcycle

Heavy Vehicle

Pedestrian



Impaired Driver Unrestrained Occupants Intersection Related

Roadway Departure

ILSHSP WORK ZONE SAFETY TARGETS

Fatalities:

Reducing 5-year rolling average from 27 in 2014 to less than 19 by 2020

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 196 in 2014 to less than 138 by 2020.



Illinois has a goal to **eliminate ALL** traffic-related work zone **fatalities**

Work zones typically operate with a reduced number of lanes, reduced lane and shoulder widths, or edge drop-offs that may result in lower posted speed limits. Changing conditions such as lane shifts and unexpected queues require increased driver attention and slower travel speeds. Distracted driving, speeding and/or aggressive behavior contribute to the majority of work zone crashes. If crashes occur in work zones.

emergency medical service response can be more complicated and may be delayed. Illinois has dedicated analyses, strategies and program implementation to address work zone safety.

Work zone related fatalities and serious injuries represent 2% of overall fatalities and serious injuries in Illinois and therefore is a *Priority Level Three*.

Progress

Illinois has successfully used portable changeable message signs (PCMS) to communicate changing conditions and provide safety messages to the traveling public. These devices have become an integral part of Illinois' work zone safety efforts for workers and the traveling public.

Illinois has implemented a number of multidisciplinary and multi-stakeholder strategies to address work zone fatalities and injuries. From 2005 to 2014, work zone fatalities and A-injuries decreased 30%. The statewide work zone safety implementation team has been instrumental in identifying and implementing effective work zone strategies for over a decade.

Work zone safety traffic laws have been established and strengthened to protect both the traveling public and the workers; such as increased speeding fines, Move Over Laws, and no-cell phone-or-texting laws.

IDOT and ISP partner to implement a statewide work zone safety hireback enforcement program to enforce work zone laws and to expand the use of photo speed enforcement in work zones. Local agencies now have the authority to establish their own hireback programs.

Statewide media campaigns and targeted messages have been implemented to increase public awareness and education of work zone safety. The Secretary of State's Illinois Rules of the Road booklet has been expanded to include more information on work zone safety.

Emergency response and access is an integral component of the traffic management plan, and annual work zone reviews identify best practices and opportunities for enhancement through policy and program changes.

FIGURE WZ-O2 Work Zone Fatalities 2005-2014

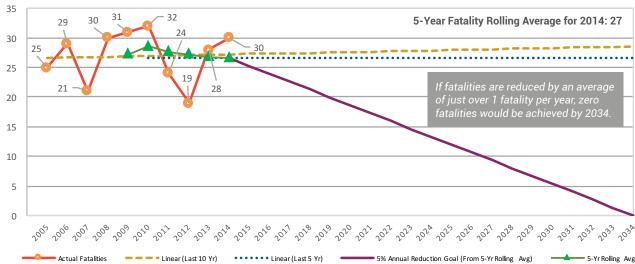
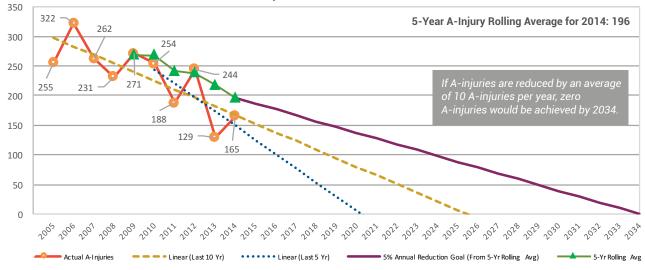


FIGURE WZ -O3 Work Zone A-Injuries 2005-2014



Issues and Contributing Factors to be Addressed

TABLE WZ-01

WORK ZONE: Number of Fatalities by State and Local Urban/Rural Roadways, 2010 to 2014

Fatalities	State Roadways			L	Local Roadways			
ratalities	Urban	Rural	Total	Urban	Rural	Total	Total	
2010	17	11	28	2	2	4	32	
	(53%)	(34%)	(88%)	(6%)	(6%)	(13%)	(100%)	
2011	14	6	20	4	0	4	24	
	(58%)	(25%)	(83%)	(17%)	(0%)	(17%)	(100%)	
2012	11	6	17	1	1	2	19	
	(58%)	(32%)	(89%)	(5%)	(5%)	(11%)	(100%)	
2013	5	16	21	7	0	7	28	
	(18%)	(57%)	(75%)	(25%)	(0%)	(25%)	(100%)	
2014	8	14	22	8	0	8	30	
	(27%)	(47%)	(73%)	(27%)	(0%)	(27%)	(100%)	
Total	55	53	108	22	3	25	133	
	(41%)	(40%)	(81%)	(17%)	(2%)	(19%)	(100%)	

As shown in **Table WZ-01** and **Table WZ-02**, over 80% of all work zone fatalities and over 65% of work zone-related A-injuries occurred between 2010 and 2014 on the state road system. Urban area accounted for a majority of the state route work zone fatalities and serious injuries.

TABLE WZ-02

WORK ZONE: Number of A-Injuries by State/Local and Urban/Rural Roadways, 2010 to 2014

A-Injuries	State Roadways			L			
A-injuries	Urban	Rural	Total	Urban	Rural	Total	Total
2010	163	31	194	44	16	60	254
	(64%)	(12%)	(76%)	(17%)	(6%)	(24%)	(100%)
2011	89	31	120	57	11	68	188
	(47%)	(16%)	(64%)	(30%)	(6%)	(36%)	(100%)
2012	83	56	139	85	20	105	244
	(34%)	(23%)	(57%)	(35%)	(8%)	(43%)	(100%)
2013	36	50	86	32	11	43	129
	(28%)	(39%)	(67%)	(25%)	(9%)	(33%)	(100%)
2014	56	48	104	51	10	61	165
	(34%)	(29%)	(63%)	(31%)	(6%)	(37%)	(100%)
Total	427	216	643	269	68	337	980
	(44%)	(22%)	(66%)	(27%)	(7%)	(34%)	(100%)





Work zone related trends and issues were identified based on 2010-2014 fatalities and serious injuries

67% work zone fatalities and serious injuries occurred on state routes.

69% work zone fatalities and serious injuries occurred in urban areas.

43% work zone fatalities and serious injuries occurred **on state routes** in urban areas.

28% work zone fatalities and serious injuries involved speeding and/or aggressive driver.

39% work zone fatalities and serious injuries on state routes in urban areas occurred on **interstates and freeways**. Among these fatalities and serious injuries;

- 33% involved heavy vehicles, with 50% of these involving speeding and/or aggressive driving, and 63% resulting in rear-end collisions.
- 9% involved unrestrained occupants, and 56% of these had impaired driving as a contributing factor.
- 11% involved older drivers, and 43% of these occurred at night (including light conditions of darkness, darkness lighted road, dawn, and dusk).

Urban arterial work zone fatalities and serious injuries accounted for **47%** of total work zone fatalities and serious injuries, with **56%** of them occurring **on state routes** on arterials. Among these fatalities and serious injuries:

- 53% were intersection related; 41% of those resulted in turning collisions and 21% in rear-end collisions.
- 6% involved unrestrained occupants; 18% of those had impaired drivers as a contributing factor.
- 53% were roadway departure crashes and 23% had speeding/aggressive driving as a contributing factor.

Objectives and Strategies

Illinois continues to strive to
enhance work zone safety. Table
WZ-O3 identifies some key
objectives and potential strategies
to address the contributing factors
associated with work zone-related
fatalities and serious injuries.

This data-driven, collaborative approach will help Illinois achieve work zone fatality and A-injury goals and ultimately drive Zero Fatalities to a reality.

TABLE WZ-O3 Objectives and Strategies to Address Work Zone Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Enhance work zone safety	1.1 Enhance traffic management to improve traffic flow, reduce queue and minimize rear-end and roadway departure work zone crashes.	Engineering
performance and reduce the impact of work zones	1.2 Expand traffic management plans to include traffic incident management and use demand management programs to reduce volumes through work zones.	Engineering/ EMS*/ Enforcement
	1.3 Improve construction operation by enhancing safety performance.	Engineering
	1.4 Provide enforcement to improve driver behavior through work zones to reduce speeding and improve seat belt usage.	Enforcement
	1.5 Utilize full-time roadway closure for construction operations or nighttime road work.	Engineering
	1.6 Design future work zone capacity into new or reconstructed highways.	Engineering
2. Improve work zone design	2.1 Evaluate work zones to improve driver expectation and reduce driver confusion through enhancing roadway geometry, signage and pavement markings.	Engineering
practices	2.2 Implement measures to reduce work space intrusions and limit consequences of intrusions.	Engineering
	2.3 Improve work zone design to accommodate traffic incident management.	Engineering/ EMS
	2.4 Improve temporary barrier design to reduce and minimize severity of roadway departure crashes.	Engineering
	2.5 Improve work zone visibility to reduce nighttime work zone crashes.	Engineering
	2.6 Improve work zone safety for pedestrians, pedalcyclists, motorcyclists, and heavy vehicle.	Engineering
	2.7 Reduce flaggers' exposure to traffic.	Engineering
3. Increase traffic law compliance in	3.1 Strengthen existing work zone laws and work with courts to improve understanding of work zone laws.	Enforcement/ Education
and near work zones, and improve work zone traffic control	3.2 Increase enforcement presence through strategic deployment, special details and photo speed enforcement.	Enforcement
devices	3.3 Improve visibility of work zone traffic control devices, personnel and vehicles.	Engineering
	3.4 Improve credibility and accuracy of signs in work zone.	Engineering
4. Increase public awareness (public	4.1 Increase the number of strategic media buys and press events to reduce speeding, impairment and distraction in work zones.	Education
outreach) of work zones	4.2 Work directly with the trucking industry to improve communication and awareness of work zone safety and identify opportunities to enhance safety.	Education
	4.3 Identify opportunities to provide education and awareness to older drivers and target young drivers to reduce speed and increase seat belt usage.	Education
	4.4 Provide work zone training programs and manuals for designers and field staff.	Education





Objectives (What)	Strategies (How)	Implementation Area(s)
5. Improve communication and	5.1 Coordinate with EMS before projects commence to communicate EMS access accommodations being provided.	Engineering/ Education/ EMS*
coordination at the pre-construction phase	5.2 Coordinate with law enforcement to increase awareness of specific work zones, determine options to improve enforcement and communicate enforcement needs to target specific higher risk behavior.	Enforcement
	5.3 Work with local communities prior to arterial work zone projects to determine needs and potential accommodation for pedestrians; determine best methods for effective communication with local communities.	Administrative
6. Develop procedures to	6.1 Develop or enhance agency-level work zone crash data systems.	Engineering/ Education
effectively manage work zones	6.2 Improve coordination, planning, and scheduling of work activities.	Engineering
	6.3 Use incentives to create and operate safer work zones.	Engineering
	6.4 Implement work zone quality assurance procedures.	Engineering

* EMS/Emergency Medical Services





Distracted/ Fatigued/Drowsy Driver

BACKGROUND

To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area.

Fatalities and serious injuries caused by distracted and fatigued/drowsy driving are a growing concern nationally as well as in Illinois. In national surveys, the majority of motorists strongly object to distracted driving. However, most motorists fail to realize the risks of their own distracted and drowsy driving behaviors.



As with driving while alcohol-impaired, driving while drowsy or distracted slows reaction time, decreases awareness, and impairs judgment. Detection of drowsy and distracted drivers presents enforcement challenges. Additionally, these crashes involving distracted/fatigued/drowsy drivers are largely underreported.

A distracted/fatiqued/drowsy-driver-involved crash is defined as a crash in which one of the drivers is fatigued; asleep/fainted or illness/fainted or both;

distracted from inside or outside the vehicle; or using any electronic device or cell phone.

Distracted/fatigued/drowsy-driving crashes largely occur at the end of the week (Thursday, Friday and Saturday) and during the afternoon (noon to 5 p.m.). Distracted/fatigued/drowsy-related fatalities and serious injuries represent 5% of overall fatalities and serious injuries in Illinois and therefore is a *Priority* Level Three.

FIGURE DF-01

Distracted/Fatigued/Drowsy Priority Level

Pedalcyclist

Work Zone

DISTRACTED/FATIGUED/ **DROWSY DRIVER**

Highway-Railroad **Grade Crossings**



Speeding/Aggressive Driver

Older Driver

Younger Driver

Motorcycle

Heavy Vehicle

Pedestrian



Roadway Departure





ILSHSP DISTRACTED/FATIGUED/DROWSY SAFETY TARGETS

Fatalities:

Reducing 5-year rolling average from 25 in 2014 to less than 18 by 2020

Serious Injuries (A-Injuries):

Reducing 5-year rolling average from 653 in 2014 to less than 457 by 2020

Progress

Illinois has continued to see an overall downward trend in distracted/fatigued/drowsy-driver fatal and A-injury crashes with the multidisciplinary approaches to implement corridor and systemic improvements. From 2005 to 2014, fatalities caused by fatigued, distracted, and drowsy drivers have decreased by 8%, and A-injuries have decreased by 5%. Laws passed in Illinois prohibit all drivers from texting while driving, young drivers (age 19 and younger) from using cell phones while driving, bus drivers from using cell phones while driving, and all drivers from using cell phones in school zones or highway construction zones. The state's Distracted Drivers Task Force, coordinated by the Illinois Secretary of State, was commissioned to study the problem of distracted driving in Illinois. In addition, IDOT is working with the state, local law enforcement agencies, and other local agencies to strategize best techniques for enforcing distracted driving laws and reporting complete and accurate data on distracted driving.

> Illinois has a goal to eliminate ALL distracted/fatiqued/ drowsy-involved **fatalities**

FIGURE DF-02 Distracted/Fatigued/Drowsy Fatalities 2005-2014

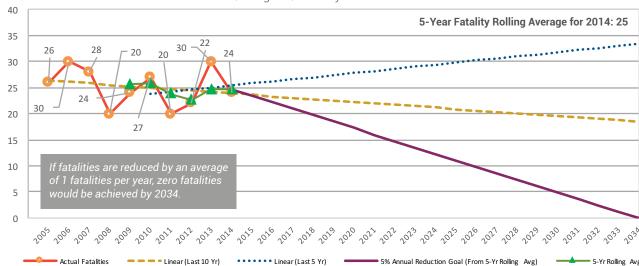
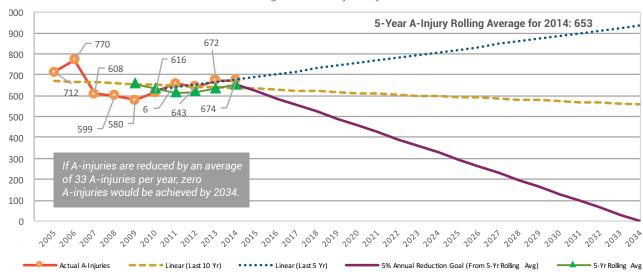


FIGURE DF-03 Distracted/Fatigued/Drowsy A-Injuries 2005-2014



Issues and Contributing Factors to be Addressed

TABLE DF-01

Number of Fatalities in Distracted/Fatigued/ Drowsy Crashes on State and Local Urban/ Rural Roadways from 2010 to 2014

TABLE DF-02

Number of A-Injuries in Distracted/Fatiqued/ Drowsy Crashes on State and Local Urban/ Rural Roadways from 2010 to 2014

Fatalities	State Roadways			Local Roadways			
	Urban	Rural	Total	Urban	Rural	Total	Total
2010	4	11	15	6	6	12	27
	(15%)	(41%)	(56%)	(22%)	(22%)	(44%)	(100%)
2011	2	5	7	5	8	13	20
	(10%)	(25%)	(35%)	(25%)	(40%)	(65%)	(100%)
2012	4	12	16	4	2	6	22
	(18%)	(55%)	(73%)	(18%)	(9%)	(27%)	(100%)
2013	2	16	18	6	6	12	30
	(7%)	(53%)	(60%)	(20%)	(20%)	(40%)	(100%)
2014	0	12	12	7	5	12	24
	(0%)	(50%)	(50%)	(29%)	(21%)	(50%)	(100%)
Total	12	56	68	28	27	55	123
	(10%)	(46%)	(55%)	(23%)	(22%)	(45%)	(100%)

A-Injuries	State Roadways			Local Roadways			
	Urban	Rural	Total	Urban	Rural	Total	Total
2010	203	139	342	175	99	274	616
	(33%)	(23%)	(56%)	(28%)	(16%)	(44%)	(100%)
2011	205	151	356	179	124	303	659
	(31%)	(23%)	(54%)	(27%)	(19%)	(46%)	(100%)
2012	150	180	330	187	126	313	643
	(23%)	(28%)	(51%)	(29%)	(20%)	(49%)	(100%)
2013	111	213	324	245	103	348	672
	(17%)	(32%)	(48%)	(36%)	(15%)	(52%)	(100%)
2014	112	214	326	261	87	348	674
	(17%)	(32%)	(48%)	(39%)	(13%)	(52%)	(100%)
Total	781	897	1,678	1,047	539	1,586	3,264
	(24%)	(27%)	(51%)	(32%)	(17%)	(49%)	(100%)

As shown in Table DF-01 and **Table DF-02**. 55% of distracted/fatiqued/drowsy fatalities and 51% of distracted/fatigued/drowsy A-injuries occurred on the state roadway system between 2010 and 2014. State roadways in rural areas have the highest number of distracted/ fatigued/drowsy fatalities, and local roadways in urban areas have the highest number of distracted/ fatigued/drowsy A-injuries.

The following list includes some additional high-priority trends and issues for distracted/fatigued/ drowsy crashes. Numbers and percentages reflect fatalities and serious injuries in distracted/ fatigued/drowsy crashes from 2010 to 2014.

55% of the distracted/fatigued/drowsy-driver-involved fatalities and serious injuries occurred in urban areas.

- 42% occurred on state roadways and 58% occurred on local roadways.
 - On state roadways in urban areas, the distracted/fatigued/drowsy-driver- related fatalities and serious injuries decreased by 46%, from 2010 to 2014, which is approximately 11% per year.
 - On local roadways in urban areas, the distracted/ fatigued/drowsy-driver- related fatalities and serious injuries increased by 48%, which is about 12% per year.



In urban areas, the majority of distracted/fatigued/ drowsy-driver-involved fatalities and serious injuries on local roadways occurred on arterials (73%).

- 68% were non-intersection-related; of these, 52% were roadway departure.
 - **64%** struck a roadside fixed object.

Thursdays, Fridays, and Saturdays account for 43% of total distracted/fatiqued/drowsy-driver-involved fatalities and serious injuries.

The hour from 4 p.m. to 5 p.m. had the highest number of fatalities and serious injuries (8%), while noon to 6 p.m. accounted for 39% of total distracted/fatigued/ drowsy-driver-involved fatalities and serious injuries.

30% of distracted/fatigued/drowsy-driverinvolved fatalities and serious injuries occurred during summer (June, July, and August).

The major contributing factor, distraction inside the vehicle, accounted for 30%. Physical condition of the driver accounted for 30% of all reported factors for fatalities and serious injuries involving distracted, fatigued, and drowsy drivers.

Objectives and Strategies

Illinois continues to strive to enhance distracted/fatigued/ drowsy driving safety. Table DF-03 identifies some key objectives and potential strategies to address the contributing factors associated with fatalities and serious injuries in distracted/fatigues/ drowsy-driver crashes.

This data-driven, collaborative approach will help Illinois achieve distracted/fatiqued/ drowsy fatality and serious injury goals and ultimately drive Zero Fatalities to a reality.

TABLE DF-O3 Objectives and Strategies to Address Distracted/Fatigued/Drowsy Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
Improve roadway infrastructure to	1.1 Install shoulder and/or centerline rumble strips.	Engineering
reduce the number of drowsy- or distracted- driver crashes	1.2 Implement roadway and signage improvements to reduce the likelihood and severity of run-off-road, head-on and/or other types of distracted- and drowsy-driving.	Engineering
crasnes	1.3 Improve cell phone pull off areas, access to safe stopping and secure resting areas; improve rest area security and services.	Engineering
	1.4 Consider and implement innovative technologies to reduce distracted and drowsy driving.	Engineering
2. Explore opportunities to strengthen and	2.1 Support statewide dedicated distracted/fatigued high-visibility enforcement waves pairing saturated enforcement and aggressive community paid and earned media outreach campaigns.	Education/ Enforcement
enforce distracted/ fatigued/drowsy driving policies	2.2 Collaborate with local employers to develop/strengthen employee safe driving policies, including clear sanctions for failure to comply during work hours, and conduct supporting employee traffic safety training programs.	Education
	2.3 Evaluate and consider enhancements to legal language to improve enforcement.	Enforcement
3. Develop and implement education and awareness	3.1 Promote importance of distracted driving law enforcement among prosecutors and judiciary.	Enforcement/ Engineering
campaign and curriculum to reduce distracted/fatigued/ drowsy driving fatal and serious injury crashes	3.2 Explore enhancement of driver education curriculum and Rules of the Road to provide the latest research findings and understanding of the implications of distracted and drowsy driving.	Education
4. Capture more quality data to better direct distracted/	4.1 Capture and utilize additional data sources to better understand the magnitude, impact and locations of distracted driving.	Engineering
fatigued/drowsy reduction efforts	4.2 Evaluate opportunities to improve distracted and drowsy driving crash reporting such as additional crash report data fields.	Engineering
	4.3 Enhance and expand law enforcement training to comply with upcoming crash report changes and improve ability to detect and record distracted driving instances.	Engineering/ Education
	U(Corporation Company)	





Highway-Railroad Grade Crossings





To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area. Statistics have been prepared to highlight distinguishing collision characteristics for the highway-rail grade crossing collision emphasis area. These statistics relate to attributes associated with a collision, including driver/pedestrian age, driver/pedestrian behavior, time of day, warning devices in place, and pavement conditions.

A highway-railroad grade crossing collision is defined by the Federal Railroad Administration as "any impact between on-track railroad equipment and a highway user at a highway-rail grade crossing."

IDOT, the Illinois Commerce Commission (ICC), railroads and other stakeholders have made progress

reducing the number of collisions through a concerted effort targeting high risk locations.

Recommendations to upgrade traffic control devices, improve road geometry, close and consolidate highway-rail grade crossings and construct grade separations are potential solutions to reduce risk at

highway-rail grade crossings.

Older drivers or pedestrians over age 60, impaired drivers or pedestrians, and unrestrained motor vehicle occupants were also factors in recent collisions at highway-rail grade crossings. Educational and enforcement efforts targeting these populations could

FIGURE TN-01

Highway-Railroad Grade Crossings Priority Level

Pedalcyclist

Work Zone

Distracted/Fatigued/ Drowsy Driver

HIGHWAY-RAILROAD GRADE CROSSINGS



Speeding/Aggressive Driver

Older Driver

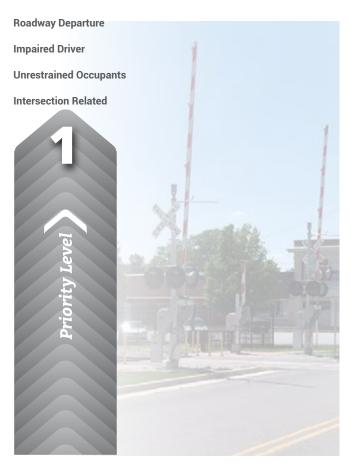
Younger Driver

Motorcycle

Heavy Vehicle

Pedestrian





reduce the number of highway-rail grade crossing related fatalities and injuries.

Highway-rail grade crossing related fatalities and injuries represent less than one percent of total highway fatalities and injuries in Illinois and are therefore classified as a *Priority Level Three*.

ILSHSP TRAIN SAFETY TARGETS

Fatalities:

Reduce the 5-year rolling average from 9 in 2014 to less than 8 by 2020

Serious Injuries (A-Injuries):

Reduce the 5-year rolling average from 11 in 2014 to less than 7 by 2020



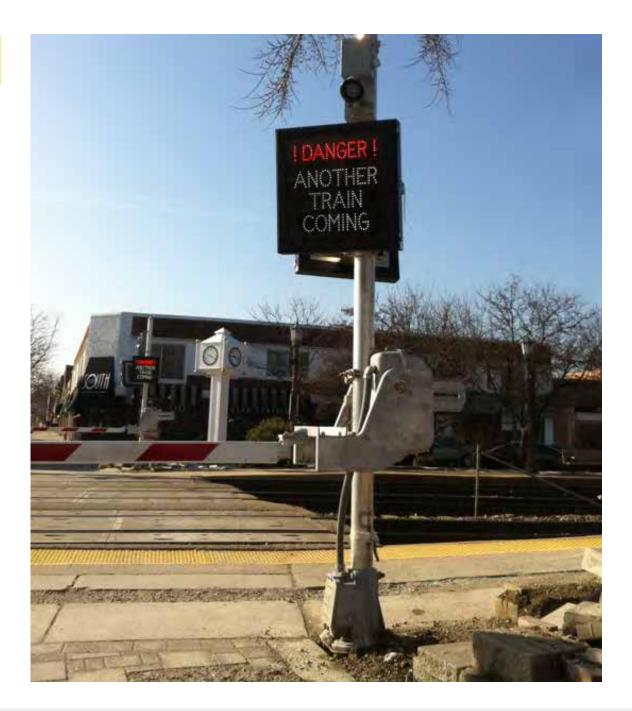
Progress

Over the past five years, Illinois has experienced a flattening in the rate of reduction in highway-rail grade crossing collisions and associated fatalities and injuries. In particular, pedestrian incidents have remained a stubborn safety challenge.

In 2011, Illinois was required by the FHWA to develop a Highway-Rail Grade Crossing Safety Action Plan. The Action Plan identified 7 strategies to reduce the occurrence of collisions.

Implementation of high(er) speed rail in the Chicago to St. Louis corridor has promoted the adoption of advanced 4-quadrant gates and pedestrian warning systems elsewhere in Illinois.

Railroads, IDOT, ICC and local highway authorities have conducted diagnostic reviews of many locations in Illinois. In particular, complex highway-rail grade crossings that have rail warning devices interconnected with adjacent highway warning systems have been evaluated to ensure optimal performance.



Progress

FIGURE TN-02 Highway-Railroad Grade Crossings Fatalities 2005-2014

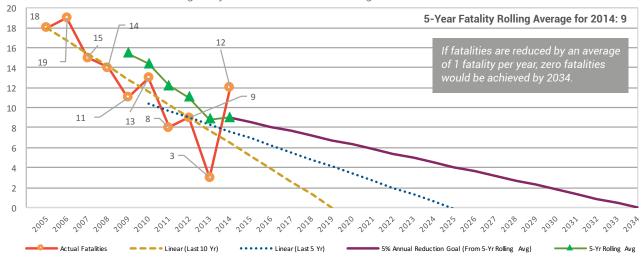
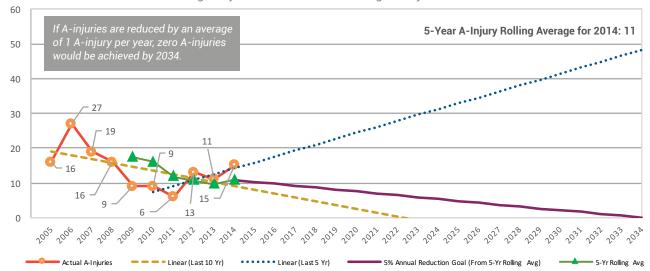


FIGURE TN-O3 Highway-Railroad Grade Crossings A-Injuries 2005-2014



Illinois' goal is to eliminate **ALL** Highway-Rail **Grade Crossing** related fatalities.

Issues and Contributing Factors to be Addressed

TABLE TN-01

Number of Fatalities in Highway-Railroad Grade Crossings Crashes on State and Local Urban/ Rural Roadways from 2010 to 2014

Fatalities	State Roadways			Local Roadways			
ratailties	Urban	Rural	Total	Urban	Rural	Total	Total
2010	2	0	2	5	6	11	13
	(15%)	(0%)	(15%)	(38%)	(46%)	(85%)	(100%)
2011	1	0	1	4	3	7	8
	(13%)	(0%)	(13%)	(50%)	(38%)	(88%)	(100%)
2012	0	0	0	2	7	9	9
	(0%)	(0%)	(0%)	(22%)	(78%)	(100%)	(100%)
2013	0	0	0	2	1	3	3
	(0%)	(0%)	(0%)	(67%)	(33%)	(100%)	(100%)
2014	2	0	2	5	5	10	12
	(17%)	(0%)	(17%)	(42%)	(42%)	(83%)	(100%)
Total	5	0	5	18	22	40	45
	(11%)	(0%)	(11%)	(40%)	(49%)	(89%)	(100%)

TABLE TN-02

Number of A-Injuries in Highway-Railroad **Grade Crossings Crashes** on State and Local Urban/ Rural Roadways from 2010 to 2014

A Injurios	State Roadways			Local Roadways			
A-Injuries	Urban	Rural	Total	Urban	Rural	Total	Total
2010	1	0	1	3	5	8	9
	(11%)	(0%)	(11%)	(33%)	(56%)	(89%)	(100%)
2011	1	0	1	4	1	5	6
	(17%)	(0%)	(17%)	(67%)	(17%)	(83%)	(100%)
2012	0	0	0	4	9	13	13
	(0%)	(0%)	(0%)	(31%)	(69%)	(100%)	(100%)
2013	2	2	4	4	3	7	11
	(18%)	(18%)	(36%)	(36%)	(27%)	(64%)	(100%)
2014	3	1	4	4	7	11	15
	(20%)	(7%)	(27%)	(27%)	(47%)	(73%)	(100%)
Total	7	3	10	19	25	44	54
	(13%)	(6%)	(19%)	(35%)	(46%)	(81%)	(100%)

As shown in Table TN-01 and Table TN-02, over 89 percent of Highway-Railroad Grade Crossings fatalities and over 81 percent of Highway-Railroad Grade Crossings related A-injuries occurred on the local roadway system versus the state roadway system between 2010 and 2014.

A majority of Highway-Railroad Grade Crossings fatalities and A-injuries occurred in urban areas.

The following list includes additional high-priority trends and issues for train crashes. **Numbers and percentages** reflect Highway-Railroad Grade Crossings fatalities and serious injuries from 2010 to 2014.



- 51% were railroad gate crossing related.
- **44%** were **other railroad gate** related.
- 49% occurred in urban areas, and 51% occurred in rural areas.
- 18% of the Highway-Railroad Grade Crossings-related fatalities and serious injuries involved an older driver.
- 29% of the Highway-Railroad Grade Crossings-related fatalities and serious injuries involved an impaired driver.



Of the fatalities and serious injuries on rural roadways, 42% were on arterials and 58% were on local roads or streets.

- Of those that were on arterials 24% were older drivers related, 29% were impaired, and 10% were unrestrained occupants.
- Of those that were on local roads or streets. 10% were older drivers, 17% were impaired driver related, and 17% were unrestrained occupants.
 - The major contributing factors of these fatalities and serious injuries on rural roadways on local roads or streets were failing to yield right-of-was (31%) and disregarding traffic signals (45%).

Of the fatalities and serious injuries on urban streets, 73% were on arterials, and 27% were on local roads or streets.

- Of those that were on arterials, 28% were older driver related, 39% were impaired driver related, and 22% were unrestrained occupants.
 - The major causes of these fatalities and serious injuries on arterials in urban areas were disregarding traffic signals (39%), and disregarding other traffic signals (14%).
- Of those that were on local roads or streets, 31% were impaired driver-involved.

Objectives and **Strategies**

Illinois continues to strive to improve Highway-Rail Grade Crossing safety. Table TN-03 identifies key objectives and potential strategies to address contributing factors associated with Highway-Rail Grade Crossing collisions and related fatalities and A-injuries.

This data-driven, collaborative approach will achieve the desired outcome of ultimately attaining Zero Fatalities at Highway-Rail **Grade Crossings.**

TABLE TN-O3 Objectives and Strategies to Address Highway-Railroad Grade Crossings Crashes in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
1. Improve infrastructure, performance, and	1.1 Upgrade highway-rail grade crossings with passive warning signs to train activated warning devices (flashing lights and gates).	Engineering
practices	1.2 Consolidate and/or close existing highway-rail grade crossings.	Engineering
	1.3 Construct grade separations of major highway-rail grade crossings carrying large amounts of train and/or highway traffic.	Engineering
	1.4 Implement (test) advanced technology applications; evaluate potential highwayrail grade crossing safety applications that may potentially be derived from Positive Train Control implementation.	Engineering
	1.5 Transfer proven technology applications installed along the high(er) speed rail corridor to other highway-rail grade crossings in Illinois.	Engineering
	1.6 Conduct enhanced inspections of all highway-rail grade crossings, particularly those where highway and railroad warning systems are interconnected.	Engineering
2. Enforce compliance with	2.1 Promote automated enforcement of traffic laws at highway-rail grade crossings with a history of collisions (or violations).	Enforcement
traffic laws	2.2 Monitor impact of fine levels on driver behavior and adjust accordingly.	Enforcement
	2.3 Encourage law enforcement staff to participate in the Grade Crossing Collision Investigation Course and other emergency response training as appropriate.	Enforcement
3. Increase public awareness	3.1 Include additional highway-rail grade crossing information in driver education and CDL teaching materials and exams.	Education
	3.2 Increase educational presentations made to the general public regarding highway-rail grade crossing safety and trespass prevention.	Education
	3.3 Implement programs to enhance safety partnerships between railroads and state and local agencies.	Education





Traffic Incident Management

BACKGROUND

Traffic Incident Management (TIM) is the systematic, planned, and coordinated use of resources to reduce the duration and impact of incidents and improve the safety of motorists, crash victims, and incident responders.





Given the wide range of issues involved with incidents such as traffic crashes, vehicle breakdowns, and special events, close coordination is required among a diverse range of public and private sector partners. These partners include: law enforcement, fire and rescue, Emergency Medical Services (EMS), transportation, public safety communications, emergency management, towing and recovery, hazardous materials contractors and traffic information media.

Law enforcement agencies are first responders at traffic incident scenes, providing 24-hour emergency response and operating under a paramilitary command structure. In most jurisdictions, the fire department is the primary emergency response agency for hazardous materials spills. Like law enforcement agencies, fire and rescue departments also operate as first responders under a well-defined command structure providing 24-hour emergency response. Transportation agencies are secondary responders as they are typically called



to the incident scene by first responders, usually law enforcement. Towing and recovery companies are secondary responders operating under a towing arrangement usually maintained by a law enforcement agency. A principal concern related to incident management is secondary crashes, which occur shortly after the occurrence of an incident due to such issues as stopped traffic. First, emergency responders must be able to get to the crash scene, which can be difficult in dense and congested traffic patterns. Second, responders must be able to secure the scene to protect the safety of victims and themselves. Finally, the crash scene must be cleared as quickly as possible to reduce the risk of secondary crashes and restore normal traffic flow.

The likelihood of a secondary crash increases by 2.8% for each minute the primary incident continues, increasing the risk to driver and responder lives, and making it even more difficult for responders to get to and from the scene.

FIGURE TI-01

Traffic Incident Management Priority Level

TRAFFIC INCIDENT

Information Systems

MANAGEMENT

Pedalcyclist

Work Zone

Distracted/Fatigued/ **Drowsy Driver**

Highway-Railroad **Grade Crossings**

Speeding/Aggressive Driver

Older Driver

Younger Driver

Motorcycle

Heavy Vehicle

Pedestrian



Roadway Departure

Impaired Driver

Unrestrained Occupants

Intersection Related





Progress

To reduce and eliminate incident scene fatalities, IDOT, in cooperation with the Illinois Center for Transportation (ICT) and Southern Illinois University – Edwardsville has developed nationally recognized TIM training. The goal of the training is to provide responders with information and best practices that improve their safety at traffic incident scenes. In addition, the training improves communication, coordination, and cooperation between emergency responders throughout the state. Developments of the training include the following:

- IDOT provided funds to continue traffic enforcement-related training to Illinois law enforcement officers on a statewide basis. The Illinois Law Enforcement Training and Standards Board (ILETSB) coordinates the specialized police training activities. The training courses include emergency medical dispatch and rapid medical response.
- An online query system has been made available under a grant through IDOT for safety analysis including mortality, hospital discharge, and crash and trauma registry data. The query capabilities are constrained and only limited data are available; however, these tools give easy access to summary data and reduce the burden on the Illinois Department of Public Health (IDPH) analytic staff and IDOT staff.
- Illinois has an injury surveillance system consisting of multiple datasets collected or managed under the direction of IDPH. In 2010, the Division of Emergency Medical Services, with Section 408 funding support from IDOT, implemented a new NEMSIS (National EMS Information System) Gold compliant pre-hospital data collection system.



Objectives and Strategies

Illinois continues to strive to improve in the area of Traffic Incident Management. Table T1-01 identifies some key objectives and potential strategies to reduce secondary crashes and improve incident clearance times.

This data-driven, collaborative approach will help Illinois reduce fatality and serious injury related secondary crashes and ultimately drive Zero Fatalities to a reality.

TABLE TI-O1 Objectives and Strategies to Address Traffic Incident Management in Illinois

	Objectives (What)	Strategies (How)	Implementation Area(s)
	1. Increase TIM training for all	1.1 Require IS-100 and IS-700 NIMS training courses for all emergency responders.	Education
е	emergency responders	1.2 Continue to provide emergency response training to a variety of emergency responders such as towing companies, local agencies, and law enforcement.	Education
		1.3 Continue required training for towing companies; workers within IDOT and ISP.	Enforcement/ Education
		1.4 Educate emergency responders on the importance of incident management and quick clearance practices.	Education
	2. Increase public and emergency responder awareness of the importance of incident management	2.1 Educate the public about the dangers of exiting a disabled or crashed vehicle.	Education
res aw the of ma		2.2 Increase public awareness of the importance of yielding the right-of-way to emergency vehicles and personnel and on the "Move Over" law.	Education/ Enforcement
		2.3 Increase public awareness of the importance of moving disabled vehicles involved in non-injury crashes from the roadway as soon as practical.	Education
		2.4 Enforce the use of required personal safety vest and enforce the use of required high-visibility apparel for first responders.	Education
	3. Improve data collection and quality metrics	3.1 Consider update to the the crash report form to improve secondary crash information.	Enforcement
	related to incident management	3.2 Develop and implement procedures to collect and record incident management and improve data sharing.	Engineering
	4. Establish interagency agreements to support traffic incident management	4.1 Establish an "Open Roads" policy to promote quick clearance for safety and mobility.	Engineering/ Enforcement/ EMS





Information Systems





BACKGROUND To ultimately achieve Zero Fatalities on all Illinois roadways, Illinois has set ILSHSP statewide targets for each emphasis area. Information systems for decision making is a data system that provides accurate and up-to-date information and performs analyses functions. These systems can aid in structuring the basic data available for

analysis and reports, which can be used for guidance in decision making.

From these information systems, data are analyzed and prepared to highlight distinguishing crash characteristics for each emphasis area. These data relate to attributes associated with a crash, including driver's age, driver behavior, time of day, safety

equipment used, and pavement conditions. Accurate, complete, and timely data are necessary for statistical analyses. This section addresses many issues that surround information systems for decision making. Information systems for decision making extends

through all priority levels of ILSHSP, because this component of traffic safety affects the analysis of each emphasis area.

FIGURE IS-01 **Roadway Departure** Information Systems Priority Level Speeding/Aggressive **Impaired Driver** Driver **Unrestrained Occupants** Older Driver Intersection Related **Younger Driver** Motorcycle Pedalcyclist Heavy Vehicle Work Zone Pedestrian Distracted/Fatiqued/ **Drowsy Driver** Highway-Railroad Traffic Incident **Grade Crossings** Management INFORMATION SYSTEMS

ILSHSP INFORMATION SYSTEMS FOR DECISION MAKING:

You can't manage what you can't measure

Quality traffic safety related data are critical to the planning, management, and evaluation of any successful State traffic safety programs. This requires timely, accurate, complete, consistent, integrated, and accessible traffic safety data.

Progress

Since 2011, traffic records systems (crash reports, roadway, driver and vehicle, citation data and health care data) have been improved in several ways that make analyses more easily accomplished and more useful as well. A complete traffic records program is necessary for planning (problem identification), operational management or control and research and evaluation of a state's highway safety initiatives.

Accessibility of crash data has been improved dramatically due to the availability of the external online "Safety Data Mart" which allows users to produce a variety of reports as well as map-based output from the IDOT Geographic Information Systems (GIS) program. The accessibility of statewide roadway information has improved by moving the Illinois Roadway Information System (IRIS) application from a mainframe environment to a SQL server database. In addition, an automated process has been developed to provide electronic large truck related crash file for the SAFETYNET.

Illinois has successfully partnered with 10 approved third party vendors to assist local agencies in collecting their Extensible Markup Language (XML) crash data to be submitted to IDOT. IDOT will continue to implement the Safety Portal initiative. This is a comprehensive and collaborative environment where IDOT can share current and past crash reports as well as crash data with the community of safety partners.

Progress (continued)

This environment will bring together data, knowledge, training and tools which will assist Bureau of Safety Programs and Engineering, Bureau of Local Roads and Streets, District personnel, county engineers, federal, state and local law enforcement agencies to provide better analysis of crash information to achieve improvements in safety.

Illinois revised its Emergency Management Services (EMS) data collection system to one that is National EMS Information System (NEMSIS) compliant and that will allow agencies to submit data electronically via software provided by the state or by their own third-party vendor. This revision will allow the Illinois Department of Public Health (IDPH) to begin receiving data from all agencies across the state for the first time in several years. This effort will allow Illinois to fill a significant void and make tremendous improvements in the timeliness, completeness, accuracy and uniformity of the state's EMS data.

The state has demonstrated notable progress in the roadway component of the traffic records system since the 2011 traffic records assessment. The most notable of the improvements was in the IRIS which has a mainframe application to a SQL server database.

The Illinois Secretary of State's Office (SOS) administers the driver licensing and vehicle registration and titling services for the state. The integrity of the driver file is enhanced by the use of facial recognition technology to identify those applicants who may already have a driver's license under some other identity. The Social Security On-line Verification and the Systematic Alien Verification for Entitlements systems are checked prior to license issuance as well.

Driver records completeness suffers somewhat from the courts' ability and willingness to allow convictions to be diverted from a driver history for attendance at a driver improvement school or performance of community service. These opportunities decrease the overall completeness of the driver file. However, the state does post all crash involvement to the driver records and linking to the vehicle file is possible through the driver's license number.

The SOS Vehicle Services Department maintains complete vehicle records that meet appropriate standards and records include appropriate indicators such as stolen and salvage. The National Motor Vehicle Title Information System (NMVTIS) facilitates exchanges of such information between states and helps to prevent title and odometer fraud by making such information available nationwide. Illinois is currently the only state that is not a participant in the NMVTIS system.



In FY 2017 IDOT funded the Data Warehouse project with the SOS. SOS maintains information systems to support both Driver's License and Vehicle Services in Illinois.

The databases contain information on approximately 8.7 million drivers and 11 million registered vehicles in Illinois. Illinois has an injury surveillance system consisting of multiple datasets collected or managed under the direction of IDPH.

Progress (continued)

The goal is to provide highly accessible, intuitive, points of access to SOS drivers and vehicles joined data.

These data sets include:

- Pre-hospital EMS data
- Emergency Department data
- · Hospital Discharge data
- Trauma Registry data
- Vital Statistics data
- · Head and Spinal Cord Registry data

Since the 2011 traffic records assessment, the state has made significant improvements in the type, quality and completeness of injury data. In 2008, collection of External Causes of Injury Codes (E-CODES) became a requirement of the hospital discharge data. Then, in 2009, IDPH began to receive emergency department data from the state's hospitals.

Illinois has made significant progress toward linking the crash data to hospital discharge data. Since 2006, Illinois has been a Crash Outcome Data Evaluation System (CODES) state. The CODES project was developed to link datasets for hospital discharge and crash data for the years 2002, 2003, 2005-2011. There is no current unique identifier between crash and hospital discharge data; consequently, linked datasets have been developed using probabilistic methods based on CODES2000 software. Several reports have been gen-

erated based on the linked data. With the inclusion of emergency department data in 2009 and the recent requirement of E-CODES in hospital discharge and emergency department datasets, the CODES program has improved linked crash and health care data.

Analysts at IDOT, along with other partners, have produced a multitude of reports that focus on traffic safety program areas. CODES data have been used to support legislative activities, especially in the area of occupant restraint.

```
| Irror_mod.use_x = False |
| Irror_mod.use_x = True |
| Irror_mod.use_x = True |
| Irror_mod.use_z = True |
| Irror_mod.us
```

Objectives and Strategies

Illinois continues to strive to
enhance its information systems
for decision making. Table IS-O1
identifies some key objectives
and potential strategies to address
the challenges associated with
information systems for decision
making with crash data.

The improvement of Illinois'
information systems for
decision making will allow
Illinois to achieve fatality and
serious-injury goals and ultimately
drive Zero Fatalities to a reality.

TABLE IS-O1 Objectives and Strategies of Information Systems for Decision Making in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
Improve all traffic safety related data quality to meet user needs	1.1 Improve data quality control program across the existing traffic safety databases (Crash, Roadway, Vehicle, Driver, Citation, and Health Care).	Engineering/ Education/ Enforcement/EMS
2. Improve	2.1 Require all law enforcement agencies to report all crashes electronically.	Enforcement
timeliness, accuracy, completeness, consistency,	2.2 Offer the latest technology to all state and local law enforcement agencies for electronic crash data collection.	Enforcement
accessibility and integration of crash and roadway databases	2.3 Enhance all the available electronic reports systems to ensure compatibility in software and hardware, provide the appropriate capacity, and make attractive to law enforcement agencies.	Enforcement
uutabaeee	2.4 Implement a more uniform way of reporting crashes and making information available to pre-approved users.	Engineering/ Education/ Enforcement/EMS
	2.5 Improve location coding for all rural roads and residential streets.	Engineering/ Education/ Enforcement/EMS
	2.6 Identify and integrate all crash databases for easy user access; create unique identifiers across all data to link datasets accurately .	Engineering/ Education/ Enforcement/EMS
3. Improve data- sharing agreement among stakeholders	3.1 Increase and simplify data-sharing between law enforcement, IDOT, SOS, and the courts.	Enforcement/ EMS
aong otditeriordero	3.2 Include more stakeholders involved with crash-related data so it can be shared and used to identify more effective crash mitigation solutions.	Engineering/ Education/ Enforcement/EMS



TABLE IS-O1 Objectives and Strategies of Information Systems for Decision Making in Illinois

Objectives (What)	Strategies (How)	Implementation Area(s)
4. Use technology that targets the improvement of citation data	4.1 Consider wireless citations as a potential future application .	Engineering/ Education/ Enforcement
	4.2 Develop central repository for citation and adjudication data that allow for tracking.	Engineering/ Education/ Enforcement
5. Engage the healthcare community to improve information	5.1 Improve the interfaces of crash data roadway, vehicle, driver, and health care data systems.	Engineering/ Education/ Enforcement/EMS
systems	5.2 Use CODES (Crash Outcomes Data Reporting System) to link crash data to other traffic safety databases.	Engineering/ Education/ Enforcement/EMS
	5.3 Improve data collection through newly implemented web-based EMS data collaboration with IDOT on CODES.	Engineering/ Education/ Enforcement/EMS
	5.4 Enhance the existing data linkage between crash data and hospital discharge, emergency department (ED), Trauma Registry (TR), and other databases.	Engineering/ Education/ Enforcement/EMS
	5.5 Encourage EMS providers to accurately document occupant restraint usage and alcohol/substance use for inclusion in the Illinois Pre-hospital Care Report Database.	Engineering/ Education/ Enforcement/EMS

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